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SYPHILITIC DISEASES.

SYPHILITIC DISEASES;

THEIR

PATHOLOGY, DIAGNOSIS, AND TREATMENT,

INCLUDING

EXPERIMENTAL

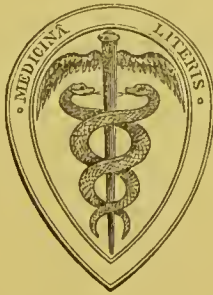
RESEARCHES ON INOCULATION,

AS A

DIFFERENTIAL AGENT IN TESTING THE CHARACTER OF
THESE AFFECTIONS.

By JOHN C. EGAN, M. D. M. R. I. A.

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TO
PAULUS ÆMILIUS SINGER, ESQUIRE,
BARRISTER-AT-LAW,

FOR
THIRTY-TWO YEARS GOVERNOR OF THE WESTMORELAND LOCK HOSPITAL
IN THIS CITY,

BY WHOSE SUPERIOR ABILITY AND SOUND JUDGMENT,
UNITED TO A DISINTERESTED AND ENTHUSIASTIC ZEAL ALMOST UNPRECEDENTED,

THE OBJECT OF THE LEGISLATURE,

IN PROVIDING FOR THE WANTS OF A NUMEROUS AND INDIGENT

CLASS OF PATIENTS,

HAS BEEN CARRIED OUT WITH AN UNTIRING AND ASSIDUOUS DEVOTION,

THIS VOLUME,

AS A

TESTIMONY OF RESPECT AND GRATITUDE FOR MANY FAVOURS RECEIVED,

IS INSCRIBED BY

THE AUTHOR.

P R E F A C E .

UPON the death of my father in the spring of 1843, through the kindness of the governors of the Westmoreland Lock Hospital, I was selected to fill the situation of intern surgeon, thus rendered vacant. Having previously resided for twelve months of my pupilage in Dr. Steevens' Hospital, I was afforded an opportunity of studying under my late lamented master, Dr. Wilmot, the nature and treatment of syphilitic diseases in the special wards of that extensive institution—a preliminary advantage which I found of no inconsiderable importance, when entering upon a more enlarged and responsible sphere of duty. My connexion with the Lock Hospital extended over a space of nearly five years, during which time I availed myself of the valuable and unusual opportunities which presented, in noting carefully the symptoms of the primary affections, observing accurately the cha-

racters of the constitutional sequelæ, and watching narrowly the effects of local and general treatment. The results of these observations were from time to time laid before the profession in papers, principally read before the "Surgical Society of Ireland;" and, from the interest they excited, and the favourable manner in which they were noticed by the leading medical periodicals, I am induced to publish, in a connected and systematic form, a treatise which may prove useful to the student, and may possibly be deemed not devoid of interest by the practising surgeon.

The subject of inoculation, as applied to the diagnosis of syphilitic diseases, having been familiar to us only through the experiments of M. Ricord, I determined, in the wide field that lay before me, to test the accuracy of the conclusions arrived at by that distinguished surgeon. This topic, together with its practical bearings, will be found fully discussed in the chapter allotted to its consideration.

The employment of the speculum, as an agent for disclosing the true pathological condition of the vagina and uterus in females labouring under gonorrhœal discharges, having never been brought into requisition in this country; partly from pre-

judice existing against its use, and partly from want of sufficient opportunity; I was particularly desirous of examining for *myself*, through the medium of this instrument, the appearances exhibited in this numerous class of patients. The results of my investigations will, for the most part be observed to be at variance with received and generally accorded opinions. The comparative rarity of granular erosions, and the total absence of the deeper varieties of ulceration on the external or internal surface of the uterus, will form striking peculiarities.

In the arrangement of primary ulcers, I have adopted Mr. Carmichael's classification, and under each general head I have given the usual consecutive results, with their appropriate treatment. This selection I have found, from experience, best calculated to impart clear and scientific ideas of the respective forms of disease, and to be attended in a practical point of view with considerable advantage. These remarks will equally hold, whether we regard the symptoms detailed as the product of one or more specific poisons. The unclassified constitutional affections, and those common to all the varieties of primary infection, have been described in distinct chapters.

Being firmly persuaded that no systematic work can be undertaken or conducted with advantage, regardless of the labours of others, I have added to the weight of my own experience the opinions of those who have devoted their attention to the elucidation of these special diseases; and, in doing so, I have endeavoured studiously to avoid making reference to authors, without acknowledging the source from whence the information was derived. If, in some instances, I have been obliged to dissent from the dictates of those who for a lengthened period have been looked up to as almost infallible authorities, any remarks of mine will not, I trust, be construed into a vain attempt at mastery; but be attributed to the sole object which I aimed to keep before me, while writing the following pages, namely, the investigation of truth.

It was my original intention to have illustrated by means of plates both the primary ulcers and the secondary eruptions; but, in order to delineate those appearances with that degree of accuracy and fidelity so indispensable to such an undertaking, I found that a greater amount of time and labour would be necessary than I at first anticipated; and that the production of the work would in consequence be materially retarded. I hope, however,

at some future period, to be enabled to supply this desideratum.

In conclusion, I beg leave to acknowledge my obligations to my friend Mr. Rumley, at whose instigation the materials for this volume were collected ; and to Mr. Tagert for many valuable suggestions during the progress of the work.

MERRION SQUARE NORTH, DUBLIN,
December, 1852.

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SYPHILITIC DISEASES,

THEIR PATHOLOGY, DIAGNOSIS, AND TREATMENT.

SECTION I.

CHAPTER I.

PRELIMINARY OBSERVATIONS.

IF, in ordinary scientific researches, it be considered necessary, previous to entering upon the elucidation of a given subject, to afford a clear definition of the terms employed in designating the object under consideration ; it is, I conceive, infinitely more incumbent on the author who ventures upon the description or treatment of disease, to state, beyond the possibility of doubt or cavil, the signification which he proposes affixing to the different affections of which he purposes to treat. But, unfortunately for the advancement of medical science, disputes, misunderstandings, and misinterpretations, have been severally the lot of the very names adopted to denote the characters of disease ; symptoms have been multiplied, ideas mystified, and the patient investigator after truth retires from the scene of laborious research, with a mind enriched with a copious vocabulary, burdened with

innumerable and discordant opinions, and perplexed amidst the difficulty of diagnosis, and the consequent uncertainty of determining upon a safe and judicious line of treatment.

To those who have devoted attention to the study of venereal diseases, with a view of arriving at clear and accurate conclusions as regards their history, pathology, or treatment, the applicability of the foregoing remarks must be in a more especial manner recognised ; and, in proportion to the expenditure of time and labour in collecting the published records and opinions of authors, will they be compelled to exclaim, with one whose recent investigations have thrown considerable light upon this branch of special pathology : “ What is syphilis? What are its symptoms?” Thus, for example, one class of writers describe all the forms and varieties of the disease as modifications of one specific virus, the different phases having been eliminated by peculiarity of constitution, mode of living, climate, treatment, &c. ; while another, not inferior in ability, or deficient in opportunities of observation, contend that a plurality of poisons alone can symptoms so diversified in their character, yet so uniform in their succession when once produced, be attributable.

Again, the nomenclature by which these affections were formerly designated has, in conformity with more modern usage, participated in the revolution to which all things human are subjected;

blennorrhagia has been substituted for the more objectionable term, gonorrhœa, while, in the very description of the stages of that disease, a confusion exists calculated to embarrass the mind,—at least of the student; virulenta being employed by most English authors to designate the second and more aggravated stage of the affection; while, by continental authorities especially, the appellation is confined to the disease when accompanied with ulcers in the urethra. The mode of treatment has been no less varied, in accordance with the peculiar views of the writer; by some, mercury being employed in every form of the disorder; by others, in certain selected cases only; and, by a third, its use being completely discarded.

Preparatory, therefore, to entering upon the subject designed by the following pages, I think it requisite to premise that, by venereal diseases I mean all those affections either directly or indirectly consequent upon impure sexual intercourse—a definition which must naturally include within its range gonorrhœa, and its consequences, primary, secondary and tertiary syphilis, properly so called.

The history of venereal diseases has formed so large an item in the various publications which for the last few years have issued from the press, that I should think it an unpardonable intrusion were I to swell those pages, by raking up from the oblivion to which they have been long since con-

signed, the detailed opinions of antiquated and by-gone authors. At the same time, I find that in order to obviate any misunderstanding, and guard against the possibility of confusion or misconstruction in further allusions to the subject, I cannot pass on without taking a cursory glance at some points which I conceive have a practical bearing upon the views which will be found embodied in the present treatise. In doing so, however, I shall endeavour to be as concise as possible, compatible with perspicuity.

Since the time of Astruc, whose treatise contains by far the most elaborate history of venereal diseases which we are acquainted, (with inferences very different, however, from those which we might expect from such an extensive fund of information,) authors have been divided in opinion as to the precise origin assignable to those affections. Thus, after a critical and chronological review of those writers who have made mention, either directly, or what has been construed into indirect allusion to the subject, Astruc arrives at the following conclusions:—"That the venereal disease was at that time, [towards the end of the year 1496] first seen in Europe; and from thence was propagated into other European countries. That this disease was so far different from any of the diseases of the ancients, that all persons at that time were unacquainted with it; insomuch that the physicians, astonished at the novelty of the disease, and find-

ing by experience that the medicines which were usually given in analogous distempers proved ineffectual, were at a loss what method they should pursue, and for a time gave up the cure of this disease into the hands of quacks and mountebanks.”*

Swediaur and Benjamin Bell, to whom may be added the name of Mr. Becket, whose paper appeared in the 30th and 31st volumes of the *Philosophical Transactions*, are strenuous in asserting that the disease prevailed among the Jews, Greeks, and Romans, long antecedent to the discovery of America. Hunter, although he considers it “immaterial to know at what period and in what country this disease arose,” states that “the first appearance of this poison is certainly within the period of modern history.”†

Among the more recent authorities, Mr. Bacot, who has devoted considerable attention to the study of syphilitic diseases, says: “Surely I may be allowed to say that if there is any historical fact that can be said to be proved, it is that of the origin of syphilis being referrible to the latter years of the fifteenth century ; for I cannot understand otherwise, why at that precise period we all at once hear of ulcers on the parts of generation in both sexes, followed speedily by excruciating

* Astruc on Venereal Diseases, book i., p. 32.

† Hunter on Venereal Diseases, chap. i., p. 9.

nocturnal pains, and very frequently by death; when not one word that can be construed into any similar affection is to be met with distinctly stated by any writer before that period.”*

Mr. Acton, and on his authority we may add that of M. Ricord, thinks that venereal diseases have probably existed from the most remote ages; at least, the non-virulent class of such affections, as gonorrhœa; and he also states that a disease similar to syphilis was known previously to the year 1494.

Mr. Carmichael, to whom we are indebted for a clear and scientific classification of the different forms of eruption, included by his predecessors under the generic term of copper-coloured blotches, conceives that venereal complaints existed long before their supposed introduction at the latter end of the fifteenth century; but states that from this period we may date a new form of the disease, “which astonished the practitioners of that day, and spread consternation over every state in Europe.”†

After so numerous and conflicting opinions, it can scarcely be considered surprising that an author should approach with extreme diffidence, the task of fixing with any degree of accuracy the outbreak of those affections. Indeed, the most that can be expected from historical record, both

* Medical Gazette, vol. 2, p. 100.

† Lectures on Venereal Diseases, p. 18.

sacred and profane, is to determine whether such disorders were known in the more remote ages of the world, or whether they bear a more modern impress ; and in order to decide this fact, it will be necessary to appeal in the first place to scriptural authority. That gonorrhœa was known to the ancients must be sufficiently apparent to any one who has looked into the books of the Old Testament, and more particularly into those passages having special reference to the Levitical laws, which were prescribed about the year 2,400.* That the other forms of venereal diseases were common in the early periods of the world, can likewise, I conceive, be proved from the sacred records, and has been sufficiently substantiated by historians who flourished at an age long anterior to the fifteenth century. The leprosy, a disease so common among the Jews, bears a striking analogy to secondary syphilis of the present day, and an appropriate treatment was assigned to it.†

The close approximation of the symptoms of the two diseases has been ably pointed out by Mr. Beckett, in his paper already alluded to. Hippocrates, in his third book, makes mention of symptoms usually attendant upon syphilitic diseases ; and Celsus, in his sixth book and eighteenth chapter, describes at considerable length diseases of the

* Leviticus, chap. 15.

† Leviticus, chap. 13 ; and Proverbs, chap. v. 7—11.

genital organs ; and with a degree of accuracy calculated to remove any doubt on the mind of the reader, as to the affections referred to. Pliny, Josephus, Herodotus, Lucian, and the Greek historians subsequent to the time of Celsus all make allusion to it ; and, in the year 1347, we read of the establishment of public brothels at Avignon, under the sanction and superintendence of Queen Jane, with full regulations for their management. The Chinese physicians were likewise of opinion that venereal diseases had been known in their empire in all ages ; and their books of physic written in the Chinese language, which are acknowledged to be very old, are silent as to the first appearance of the disease ; “wherefore,” says their correspondent, “it is neither known to have been imported from some other country, nor is it very probable.”

But although history enables us to trace the existence of venereal affections from the earliest period, it must nevertheless be admitted that the disease assumed a much more formidable aspect at the close of the fifteenth century ; its destructive ravages first becoming manifest at Naples, (caused, no doubt, by the admixture of the numerous troops) and thence rapidly extending over all Europe. Jerome Fracastorius, the historiographer of that day, accurately details a new and destructive form of the disease, viz. the phagedenic, involving in its ravages the pudenda of the female, a species of ulceration characterized by a disposition

to break out afresh, either in the original or adjacent structures, after the healing process had apparently terminated ; and we have likewise enumerated, (as we shall perceive, when we come to treat specially of this form of the disease) its usual sequelæ, rupia, affections of the bones, ulceration of the throat, tonsils, &c. by a writer who was ignorant of the connexion existing between the primary and secondary varieties of the disorder, and who had consequently no pre-conceived opinions to support. The intimate relation which the local bear to the constitutional symptoms, was originally taught in the year 1784 by Hunter ; who was the first to give anything like a scientific classification of venereal diseases, and whose definition of the true syphilitic chancre that bears his name, must ever remain as a memorial of unparalleled accuracy of observation, emblematic of the descriptive powers of a master mind.

It would be easy to enumerate authors and multiply passages in proof of the antiquity of these affections ; but the foregoing sketch will, I trust, suffice to shew that they existed in the remote ages of the world, although in many instances loosely and imperfectly described. I shall, therefore, take leave of this part of the subject in the words of Mr. Lawrence:—"I do not lay so great a stress upon the silence of the older writers, as some of those who have considered the subject. It does not appear to me very extraordinary, that they should

not have given a clear description of the venereal disease. They may not have understood the nature of it ; they may not have understood the various relations in which the different symptoms are to be viewed. Supposing we saw a person with a certain eruption, we should not know, (unless previously informed) that the eruption arose from a sore the patient had had weeks or months before. It may be, then, that a long time may have elapsed before the relation of the symptoms to each other was comprehended. We find many instances in the history of our art, where things that appear to us most obvious must have been overlooked for a long time. Although a knowledge of the small-pox existed for centuries, yet people were ignorant that that disease was contagious. This is only a circumstance of modern knowledge. The small-pox, measles, and scarlet-fever were confounded together for centuries; and no distinction was made between these three affections till a comparatively recent time. Indeed, between the measles and scarlet-fever no distinction was made till about the middle of the last century. That the mere silence of persons who have written on a subject, respecting some parts of its history, does not prove that what they omitted to notice did not exist, we have clear evidence from other considerations. Now Mr. Hunter, who must be deemed to have been a man of great knowledge, took much pains in investigating the venereal disease. The late Mr. John Pearson

was a man of extensive learning, and he also laboured in the examination of the subject ; but neither of those gentlemen was acquainted with gonorrhœal ophthalmia, or syphilitic affections of the eyes, in which organs the disease has always been strongly marked. Now, if persons, two or three hundred years hence, were to argue that such diseases did not exist now, because these gentlemen had not mentioned them, they would come to a very wrong conclusion. In the same way, I apprehend, we should adopt an erroneous supposition, if we imagined that the venereal disease did not exist in ancient times, because the medical writers of those times have not given a clear description of it."

CHAPTER II.

INOCULATION, HOW FAR USEFUL IN FORMING A DIFFERENTIAL DIAGNOSIS IN SYPHILITIC DISEASES.

PRIOR to the time of Hunter, inoculation had been practised in investigating the nature of venereal diseases; but as the experiments instituted by that distinguished surgeon are among the first of which we have a detailed description, I shall commence by giving an abstract of them, as contained in his work. Two punctures were made on the penis, with a lancet dipped in venereal matter from a gonorrhœa; one puncture on the glans, the other on the prepuce. The immediate effect of the operation was an itching in the inoculated part, inflammation succeeded, and a "speck" formed where the puncture had been made; this was touched with caustic, and dressed with calomel ointment. The slough having come away, it was again cauterized; and the operation was repeated at each appearance of the speck, with similar results. Four months after the healing of the ulcer on the prepuce, the chancre broke out again, and healed without any application; that on the

glands, however, remained perfect. During this time, a swelling of the glands of the right groin took place, which was resolved by mercurial frictions. Two months after the disappearance of the bubo, pain was experienced in swallowing; and, upon examination, a small ulcer was discovered in one of the tonsils, for the cure of which mercury was resorted to. About three months after, "copper-coloured blotches" broke out on the skin, and the ulcer in the tonsil re-appeared, for which mercury was again exhibited, but not in sufficient quantity to arrest the progress of the disease: a relapse again took place, for which mercury was freely administered, and after a period of *three years* a cure was permanently effected.

This experiment of Hunter's is now almost universally acknowledged to be as inconclusive as it is imperfect. The spontaneous healing of the chancres, an effect which, according to the opinions of that day, could not be brought about without the aid of mercury; the occurrence of bubo, which, in all probability, was merely consequent on the irritation produced by the process of inoculation; the ulcers of the throat, the nature of which is undefined; the supervention of copper-coloured blotches,—symptoms vaguely described in an individual under treatment, moreover, for three years,—and the probability of renewed infection during that period; all these circumstances taken together must afford but slender proofs of

the identity of the matter of gonorrhœa and chancre, or the nature of the constitutional symptoms likely to follow such an experiment. The first conclusive experiments, which have been fully substantiated by all subsequent manipulators, are those recorded by Benjamin Bell, viz.

Two young students having obtained gonorrhœal matter from patients labouring under that disease, placed it between the prepuce and glans, and allowed it to remain in that situation for twenty-four hours. In one, a considerable degree of inflammation, followed by a discharge of fœtid matter from the urethra, was the result; but these symptoms of "bastard gonorrhœa" shortly disappeared under the use of bread cataplasms, with a solution of acetate of lead, laxatives, and a severe regimen. No chancres followed. In the other, inflammation did not run to such a height; but the matter having made its way into the urethra, he was attacked on the second day by a discharge from that passage, attended with a considerable degree of pain, which continued for a year. This gentleman, having suffered so severely, instituted no further experiments. His fellow-student, however, persevered, and shortly after the subsidence of inflammatory symptoms, consequent on the former inoculation, introduced gonorrhœal matter into the substance of the glans, which he repeated on three several occasions, but without being able to produce chancres. Finally, he inserted, on the

point of a probe, matter taken from a chancre, which he introduced to the depth of three or four lines into the urethra: no symptoms of gonorrhœa appeared, but in five or six days a chancre was perceptible on the spot where he had applied the matter. To this succeeded a bubo, which suppurated, ulcers of the throat followed, and he was unable to leave his room for a month; he was eventually cured by the administration of mercury.

In his remarks upon these interesting results, Mr. Bell observes :—"I was by these experiments enabled to produce the most decisive proofs that could be desired, of the difference between the matter of gonorrhœa and syphilis, and to show that neither chancres nor other general symptoms can be produced by the matter of gonorrhœa; whilst that of syphilis, even to the secreting surface of the urethra, produces chancres, which afterwards introduce the infection into the system."*

But for a systematic detail of the results produced by inoculation, we are principally indebted to the indefatigable exertions and laborious researches of M. Ricord, who has devoted several years to the investigation of that particular subject in the wards of the *Hôpital des Vénériens* at Paris.

* Hernandez, the successful competitor for the prize awarded by the Medical Society of Besaneon, has likewise satisfactorily proved, by a series of experiments performed on convicts during his attendance on an hospital for galley-slaves, that the virus of gonorrhœa and that of chancre are different and distinct.

In his valuable treatise,* he gives a detail of numerous cases in which he experimented with the matter of simple gonorrhœa, virulent gonorrhœa, chancre, bubo, secondary and tertiary symptoms. By these experiments he has proved that the matter of mild gonorrhœa is incapable of producing ulceration, except when it is thin and serous—a condition in which it is to be found only during the few first days of infection, a stage of the disease seldom encountered in hospital practice, and therefore not likely to form materials for accurate deductions. In virulent gonorrhœa, which he states always depends upon a concealed chancre in the urethra, he has succeeded in producing the characteristic pustule by inoculation—a form of disease likely to be followed by mild secondary symptoms. He has further demonstrated that chancres, in their primitive or ulcerative stage, are capable of producing similars ulcers by inoculation ; but when the period of reparation arrives, and they begin to take on the healing process, they are no longer recognised by this diagnostic peculiarity. From his experiments on the matter of buboes, M. Ricord has concluded that those sympathetic enlargements of the inguinal glands, the result of gonorrhœa, produce upon inoculation negative results, while those consequent on chancre afford the characteristic pustule. In no instance has he been able

* *Traité Pratique des Maladies Vénériennes*, Paris, 1838.

to produce any effect by the inoculation of the secondary or tertiary forms of syphilis.

Immediately upon my appointment to the Westmoreland Lock Hospital, in 1843, I commenced a repetition of those experiments detailed by M. Ricord. A numerous class of patients labouring under gonorrhœa afforded me ample scope for testing the accuracy of the results, as set forward by that eminent continental surgeon. In those cases I was unable, after repeated trials, to obtain any result by inoculation of the gonorrhœal matter, which I inserted by means of a lancet, in the upper part of the thigh of the affected patient. I had no opportunity of practising inoculation on individuals who had contracted ulcers in the urethra, and cannot therefore say from experience what might have been the result of such a proceeding;* but many cases presented where the discharge was accompanied by *abrasions or superficial ulceration of the vaginal mucous membrane*, and which was followed by a mild form of secondaries, (generally a papular eruption over the body) although incapable of inoculation. In alluding to this condition of parts, M. Ricord observes :—"It is now well known, and proved by pathological anatomy, that, as the speculum shows us every day, gonorrhœa is often accompanied or followed

* M. Mairion tested eighty-five cases of gonorrhœa; of these, four yielded a specific pustule from inoculation; in those latter cases, chaneres were discoverable in the urethra.

by erosions, or more or less extensive destructions of the mucous membranes; but the ulcerated form of gonorrhœa, if I may thus express myself, does not render it more capable of being inoculated than that which is not, the gonorrhœal ulcers being essentially distinct from chancre." As to whether these abrasions, or simple excoriations of the mucous membrane, which existed in many cases, coetaneously with the gonorrhœal discharge, were caused by the latter disease in its inflammatory or virulent stage, or by a specific virus, are questions of by no means easy solution; but certain it was, that not a few of them were succeeded by constitutional symptoms, where no other form of lesion could be discovered on the most minute and careful investigation. To this latter statement it may be urged, that the specific sores may have had full time to heal, from the first accession of the disease till the period when the patients were admitted into hospital; and although the force of the objection cannot be denied, yet I conceive that the fact furnishes at least presumptive evidence, that the matter of gonorrhœa in its incipient state (a condition in which I had never an opportunity of testing it) is capable of producing this excoriation, which may be followed by a mild form of secondary symptoms.* And this view of the case

* In his work "*On Syphilis Constitutional and Hereditary*," published within the present year, Mr. Erasmus Wilson advocates the doctrine of constitutional infection as the result of *uncomplicated* gonorrhœa. As this

would appear not altogether to rest on mere assumption, being borne out by the observations and experiments of Mr. Evans. As regards, however, the views put forward by that gentleman, and which are to be found in his treatise *on Ulcerations of the Genital Organs*, I think it but fair to state, that they were founded on the very imperfect examination of females which we are enabled to make without the aid of the speculum; for although venereal ulcerations are but very rarely met with on the neck or mouth of the womb, yet these sores are occasionally seated at a distance within the vagina, where it would be impossible to detect their existence without the assistance of an instrument such as that alluded to. That Mr. Evans was not justified in his deductions may be shown from his own words: "Whether or not, in some cases, ulceration exists beyond the reach of the eye, can only be decided by examination after death. I must acknowledge no good reason presents itself to point out why it should not; but as we have no proof that venereal ulcers do form so far within the vagina as to be beyond discovery, I am in no way disposed to argue upon the supposition that they do; particularly as this is one of the many matters of fact that cannot

is a point which I conceive still *sub judice*, I have not insisted upon it as an ascertained fact, although it will be inferred from the text that I apprehend there are strong grounds for the belief.

be demonstrated by reasoning.”* The apparent anomaly of a woman infected with gonorrhœa only, being able to communicate venereal ulcers to one man and gonorrhœa to another, is now, I believe, no longer put forward by the advocates of the identity of the two poisons; as in every institution an opportunity is afforded of demonstrating, by means of the speculum, that chancres may exist deep in the vagina, where no form of ulceration will be perceptible externally, and where the only symptom of disease is that which will give rise to the impression on the mind of the medical attendant, that the patient is labouring under the effects produced by a gonorrhœal discharge. If the merits of the speculum vaginæ were only appreciable, as far as assisting to explode this paradoxical idea, its use as a valuable boon to our means of diagnosis, must be hailed with pleasure by all engaged in the study of syphilitic diseases.

That a considerable portion, however, of the cases of secondary symptoms which have been supposed to result from simple gonorrhœa, owed their existence to a *concealed urethral chancre*, can now be no longer doubted; such instances are alluded to by Hunter, and have been clearly pointed out by M. Ricord, Mr. Parker, and others, and to no other explanation can we refer in proof of the success which followed the mercurial treatment, as prac-

* Remarks on Ulceration of the Genital Organs, p. 78.

tised by the late Dr. Wallace of this city, in cases where he was unaware of this complication. My attention was next directed to the inoculation of the matter of buboes; two classes of which, the sympathetic, usually consequent on gonorrhœal inflammation, and those produced by the absorption of the syphilitic virus, presented themselves to my notice. As regards the experiments which I had an opportunity of instituting upon the former, which were characterized for the most part by tumefaction of the deep-seated glands, I was unable after repeated trials to elicit any effect beyond slight irritation of the cuticular surface, results so far coincident with the experiments of M. Ricord; but I have been convinced from frequent observation, that even here a mild form of constitutional symptoms, as a papular eruption, an erythematous redness of the fauces, has often resulted on this affection.

In the latter, the virulent bubo of M. Ricord, I have succeeded in several instances in producing the characteristic pustule by inoculation. These enlargements of the inguinal glands were distinguishable from the former, by being generally confined to the superficial ganglions. I must, however, confess, that although my experiments were performed in strict accordance with the rules laid down in those cases for the operator by M. Ricord, I was not unfrequently disappointed at finding that inoculation did not give rise to the pustule which makes its appearance after the in-

roduction of the venereal virus. While, therefore, I admit that this test, when applied to enlargement of the inguinal glands, will in many cases serve to distinguish the nature of the cause that produced this secondary effect, I cannot concur in the conclusion at which M. Ricord arrives when he states, that inoculation in bubonic enlargements must be relied upon as forming an unexceptionable and pathognomonic sign. Moreover, I am inclined to think that, from his own experiments, this deduction is of too sweeping a nature ; as, even in cases where buboes resulted on chancre, he was not always successful in producing positive results—these effects not being elicited at all in some instances ; and in others, not till after a repetition of the experiment. It is true that, in these unsuccessful attempts, M. Ricord has endeavoured to point out the causes of failure ; the pus being sometimes taken from a gland too near the surface, at other times from a mixture of that contained in a superficial and deep ganglion, and occasionally from the pus contained in the surrounding cellular tissue. Further, he observes that in order to produce a specific pus, it is not only necessary that the bubo shall have been consequent on chancre, but that the virus shall have been transmitted to the gland by the process of absorption, and not by any sympathetic irritation. But admitting that to one or other of these circumstances, want of success can be always attributable—points which

may perhaps be satisfactorily made out in the mind of an expert and experienced manipulator—it must nevertheless be sufficiently obvious that, to an operator of less practical knowledge of the cautions required and the difficulties to be avoided, conflicting statements and contradictory results must frequently ensue; which, in a medico-legal point of view might be attended with unhappy consequences. Thus, Dr. Wallace informs us, that although he inoculated some hundred times with the matter discharged from buboes, he only succeeded on three occasions in producing any specific effect. On these occasions, the ulcers that resulted presented during their entire course the characters of the primary syphilitic ulcer. On the other hand, Mr. Hamilton, whose experiments were performed at the Richmond Hospital, in this city, states that the facts which he has observed in his own trials of inoculation, bear out in every particular the truth of M. Ricord's researches, and that this is the surest test in determining the virulent or non-virulent character of buboes.

There is another form of bubo alluded to by M. Ricord, of which he admits the existence, though he states it is of rare occurrence: this he calls the primary non-consecutive bubo (*bubo d'emblée*). The existence of this species of inguinal enlargement was likewise attested by Fallopius, Astruc, Swediaur, Bertrandi, and Gibert; and it is said to present itself after impure sexual intercourse,

without the intervention of any antecedent form of disease. As I have never met with a decided example of this affection, (the existence of which my experience would lead me to deny) I shall transcribe from M. Ricord's work the passage which bears upon its history:—"If (he says) the patients be closely and minutely questioned, one will soon be convinced that the reputed primary buboes are very rare ; for most frequently, in those which were supposed to be such, we find the cause so evident, that we are surprised that the patients themselves did not perceive it. Thus, patients who have only become aware of their disease by the development of a more or less painful tumour at the anus, will only speak to you of this tumour, which they only perceived the day previous, or even that day. If you interrogate them, they state the last coition to have been a fortnight, a month, or more, previous ; if they be then examined, a chancre will be found, often pretty extensive, upon the penis, prepuce, or some neighbouring part. Yet, after an unclean connexion, the engorgement of the ganglions situate near the sexual organs becomes, though rarely, primarily diseased. There are some circumstances in which it is impossible to find any suspicious antecedent or concomitant, and we are then obliged to admit the existence of the primary non-consecutive bubo (*bubo d'emblée*). If these engorgements be attentively examined, without being led into error by those which may resemble them, it will

be found that they generally make their appearance in the deeper ganglions, and not unfrequently even in those of the fossa iliaca, or at least the sub-aponeurotic of the thigh; that their progress is often chronic; that they are a long time indolent, and have little tendency to suppuration; but what is most remarkable is that, when they suppurate, the pus they furnish does not inoculate. Hitherto, I have never found a bubo with all the rational signs of non-consecutive bubo (*d' emblée*), which furnished an inoculable pus. If to this important observation be added, that after very careful researches, I have never found that a strictly speaking non-consecutive bubo has been followed by symptoms of general syphilis, the importance of inoculation in this case will be apparent."*

Before proceeding to the description of the primary syphilitic sores, whose characters I had an opportunity of testing by the process of inoculation, it may be well to give an outline of the appearances which inoculation of the venereal virus produces, in and around the part where the specific matter is inserted, and which will explain the meaning of the term "characteristic pustule." It will likewise be necessary to premise, that for the purposes of inoculation, it is essential to bear

* In the admirable translation of M. Ricord's letters, recently published by Dr. Stapleton of this city, I have been highly gratified to find that the existence of primary bubo is now altogether denied by M. Ricord, and that even the possibility of its appearance is no longer insisted upon by him at his *clinique*.

in mind the transition through which a venereal ulcer passes previous to its cicatrization or complete disappearance, during which period two distinct stages are recognizable ; the first being that of ulceration, which may be prolonged to an indefinite space of time, and in which the sore furnishes a specific pus ; the second, that of reparation, in which the venereal virus is no longer demonstrable by inoculation.

If matter be taken from a chancre during its first or ulcerative stage, it will produce the following effects:—Inflammation, at the termination of the first day, will be more or less apparent at the point where the skin was punctured ; on the second day, tumefaction of the adjacent parts will be added ; on the third, an areola of a rose-coloured tint will present itself ; on the fourth, a vesicle, which will have the effect of raising the cuticle, and on whose summit a dark speck is generally observable, will be perceptible ; on the fifth, a depression is observed on the apex of the vesicle, and its contents are changed from a transparent to an opaque purulent matter ; on the sixth, induration in the surrounding and deep-seated cellular tissue ensues, and the pustule decreases ; and on the succeeding days a number of concentric crusts are thrown around the pustule, and present a conical appearance. On the disappearance of the crusts, an ulcer with an indurated base, undermined edges, and a surface of a bright red colour,

smeared over with a thick tenacious matter, is disclosed to view : this ulcer is bounded by a dark livid and elevated margin. Such is the progress of the syphilitic virus, and such the effects generally occasioned when matter taken from a specific ulcer is inoculated beneath the epidermis.

But although this would be conclusive evidence of the specific nature of the ulcer from which the pus had been taken, we must not be disappointed if we should fail to produce this positive result by inoculation. During the course of my experiments, I have been not unfrequently foiled in obtaining this decisive proof of the virulent character of the ulcer ; although, from the appearance of the primary sore, and the subsequent effects of the poison upon the constitution, conclusive evidence was afforded of the contaminating influence of the disease. In some of the cases to which I allude, the only effect produced was slight inflammation, which, in the course of a few days, subsided ; in others, the inflammation ran to a higher pitch, and terminated in an unhealthy phlegmonous abscess ; while in a third, no visible effect was at all discernible. These remarks more particularly apply to the first class of primary ulcer, which I shall have occasion hereafter more fully to describe ; characterized more by negative than positive symptoms—namely, the absence of induration or excavation to any considerable extent, and which constitute by far the most extensive

class which are met with in practice. It may be argued that the cause of failure in these cases, was owing to want of sufficient attention on the part of the operator, in neglecting to take the matter at a time favourable to the propagation of the venereal virus—viz., in the ulcerative stage of the sore, previous to the setting up of the reparative or healing process; or that the pus inoculated, although taken at the proper period, was inserted too deeply beneath the epidermis, and by coming in contact with the cellular membrane, gave rise to phlegmonous inflammation terminating in abscess; or, lastly, that these instances in which inoculation did not produce the characteristic pustule were merely simple non-specific ulcers.

To these objections I can safely reply, that from the care and caution with which these experiments were instituted, no such casualties could have occurred. However, even in this form of primary syphilis, sufficient proof was available, in a succession of secondary affections, to demonstrate the virulent specific or poisonous nature of the superficial non-indurated sore. But as it is in inoculation with the matter of cow-pock, so also does it occur in the insertion of the syphilitic virus, that failure, owing to causes over which we have no control, as the resistance of surfaces, even in conditions apparently favourable to the reception of the virus, must occasionally prevent the developement of the symptoms consequent upon the introduction of the poison.

That this test was applied to a few simple non-specific ulcers, I am willing to concede ; but in these cases it was almost evident to any person, acquainted with the appearances of venereal sores previous to inoculation, that no other result could have been anticipated. I must therefore join issue with M. Ricord, when he states "that the sole, positive, unequivocal, and pathognomonic symptom of chancre, during its period of progression, or of specific *statu quo*, is to be found only in the pus which it secretes, and in its capability of being inoculated."* But it is more especially in reference to the next class of primary affection, the indurated and excavated ulcer of Mr. Hunter, that inoculation can truly be relied upon as supplying a valuable and unerring diagnostic test. Twenty-nine of these ulcers, which may be considered as forming the prototype of primary syphilis, fell under my observation, in all of which inoculation was performed, and in every instance, with but one exception, the characteristic pustule was the result of the operation.

In all these cases, the induration, which gave the sensation of a piece of cartilage beneath the skin, made its appearance before the termination of the first week ; and I fully satisfied myself, as far as it was possible by minute investigation into the history of the case, that no plan of treatment, local

* Ricord's Letters, by Stapleton, p. 37.

or constitutional, had been resorted to, to which the superinduction of this cartilaginous hardness might have been attributed. I may further mention, as affording an illustration of the gristly induration of the margins of these particular primary sores, that while engaged in collecting matter for the purpose of experiment, the point of the lancet has been frequently turned from an unexpected jerk of the patient. Thus, Mr. Hunter's idea of the specific and poisonous nature of this ulcer has been fully corroborated by inoculation. The next form of primary sore upon which I was induced to experiment, was the phagedenic or sloughing ulcer; of this class, ten examples presented, but upon five only was this test instituted. In none of these cases did inoculation produce any decided result; but as the process of reparation had set in, in two of the latter instances, no effect could have been expected. The cause of failure in the three cases which seemed favourable for the operation, as also in those which have occurred in the practice of others, I am inclined to consider as explicable on the supposition of the rapid destruction of the parts concerned in the disease; and not from the circumstance of the absence of a specific virus in the ulcer itself, which might militate against the propagation by inoculation of the local affection. The same explanation will, I think, account for the less frequent occurrence of constitutional symptoms, as the result of absorption from this form of primary syphilis.

But although specific results do not always succeed to inoculation of this destructive form of ulceration, yet sufficient evidence can be adduced to prove that such consequences do occasionally ensue; and that ulcers identical in character and disposition have made their appearance on sound parts of the body, from the introduction of pus from these peculiar sores. Thus, in his experiments on inoculation, M. Ricord adduces the following case, which, as it is one of peculiar interest as bearing upon this precise point, I have taken the liberty of transcribing:—

“Pers——, aged 40, entered April 13, 1834. The commencement of the disease was two months and a-half previous, in consequence of an erosion of the perpuce during coition. A chancre appeared; its course was at first regular, but after repeated excesses, and an attempt at cauterization with a burning cigar, the ulcer assumed an acute inflammatory and phagedenic form. At the time of his entry, near the whole surface of the præpuce was affected, but two portions appeared distinctly separated; all the parts touching the roll at the base of the glans presented a gangrenous ring; the remainder presented the characters of a phagedenic chancre, properly so called: all was in the progressive stage.

“14th. Some pus, taken from the ring at the base of the præpuce, was inoculated on the right thigh; an application of a concentrated decoction of opium was ordered.

“18th.—The inoculated puncture had produced nothing ; the gangrene seemed checked ; some pus was taken from the surface of the prepuce, towards the margin beyond the limits of the gangrene, and inoculated on the left thigh. Dressings of calomel cerate were ordered, and the ulceration, from the destruction by the gangrene of a part of the glans, and that produced on the frænum by the phagedenic chancre, was cauterized with arg. nit.

“21st. The inoculated puncture had produced the characteristic pustule.

“26th. The progress of the inoculation, hitherto regular, appeared to assume the *phagedenic form* ; *it was profound, and rapidly destroyed the tissues.* Dressings of calomel and opium ointment were used, with cauterization with arg. nitr.

“30th. There was an improvement ; the chlorinated soda was used as a wash, and calomel was sprinkled on the part.

“May 9th. The penis was nearly well ; the inoculated chancre was in a fair way of reparation.”

A case nearly similar to the foregoing is likewise recorded by the same author in the *Clinique Iconographique de l'Hôpital des Vénériens*, where, from the inoculation of the matter from a phagedenic ulcer, a sore was produced upon the thigh, which remained unhealed during a period of eight months, the precise time which the original ulcer took in completing its reparation ; and in his remarks upon inoculation before alluded to, Mr.

Hamilton states that this test should be cautiously resorted to in phagedenic ulcerations, as an ulcer is likely to result "precisely similar in character to the one from which the matter was taken."* In confirmation of this latter remark, he adduces an instance which came under his observation when in Paris, of an intractable phagedenic ulcer, which was caused by the insertion into the thigh of the matter from a primary phagedenic sore; and a parallel case which occurred in his own practice, during the course of his experiments, and which was followed by like unpleasant consequences. Lastly, in the recent edition of his work on syphilis, Mr. Acton cautions us, under any circumstances, against the inoculation of what he terms gangrenous, or serpiginous sores; as, in doing so, the surgeon may produce an intractable ulcer that may continue for years. "In M. Ricord's experience, when an inoculation is made upon the patient himself, the ulceration which ensues assumes the form, and presents the same varieties as the primary sore, which had furnished the pus for inoculation. Thus, if the pus be taken from a *phagedenic chancre*, the ulceration will assume a *phagedenic* character; if from an indurated sore, it will take on an indurated form."† From the preceding observations,

* Dublin Quarterly Journal of Medicine, May, 1847.

† Ricord's Letters, by Stapleton, p. 31.

it will be evident that phagedenic ulcers, under certain circumstances, are capable of being re-produced by inoculation ; and when this effect results upon the operation, it always gives rise to a sore possessing the same characters as those from which the pus had been taken. This fact would go far in establishing the point, that a peculiar and appropriate poison was generated by the pus of this particular ulcer ; and this is borne out by the sequelæ of this affection, which, for the most part, exhibit a marked diversity from those which we generally encounter as the results of other forms of primary infection. As this is a subject which I shall have occasion to demonstrate when speaking of the constitutional or secondary effects of the virus, I shall not at present enter upon its consideration. From a careful review of the experiments instituted both by myself and others, with the pus of phagedenic ulcers, it would appear to me that there is but one stage in which the disease is inoculable ; which is the period intermediate between ulceration and reparation, in which the destructive and disorganizing process of sloughing is, to a certain extent, arrested, and in which the virus would seem to concentrate or localize itself in the part primarily attacked. It is on this account that no effect is produced by inoculation in the first stage, while the disease is rapidly extending, and eating up, as it were, every contiguous part ; but when its destructive ravages are stayed by the powers of

nature, or controlled by those of art, the inherent poison acquires a degree of virulence, the influence of which can be readily exemplified on the sound structures of the body.

Previous to taking leave of the subject of inoculation, as considered in reference to primary syphilitic ulcers, it may be well to add, that during the course of those experiments I invariably made use of the solid nitrate of silver on the fourth or fifth day, when I was fully satisfied as to the character of the sore, for the purpose of destroying the artificial ulceration. The only ill effects which I have ever observed to follow, were denoted by an increase of inflammatory local determination, which was speedily dissipated by the employment of some simple emollient cataplasm.

An ingenious theory relative to the prophylactic effects of inoculation, as preventive of primary sores, has been started by M. Auzias Turenne. A series of experiments was instituted by him upon apes, in order to prove that successive inoculations modify or prevent the possibility of renewed infection; and, reasoning from analogy, he states he has observed in the human species, that, after the system became to a certain extent acclimated to the venereal virus, contamination was no longer produced. But M. Ricord, who is justly sceptical on the subject, tells us that "his examples have been selected from public prostitutes grown old in debauchery, and who finally are less

frequently attacked than those commencing their career. All who expose themselves to the infection of chancre do not contract disease ;” and “in conclusion,” he adds, “what is to be thought of a preventive means attended, too, with many dangers, employed to remove the susceptibility of contracting chancre,—a result which must not of necessity, as in the case of small pox, happen to any one, and requires that the contagion be communicated at first from twenty-four to sixty-four times, without our even knowing how long this dear-bought indemnity may last. M. Puche performed seven successive inoculations on the same individual, and the results of the last were as active as those of the first.”*

The constitutional or secondary and tertiary forms of syphilis, in every form and variety, presented themselves to my notice, and in this department ample opportunity was afforded of testing the efficacy of inoculation. To enumerate their respective characters would be to give a summary of all those affections consequent upon primary infection ; it will be sufficient for my present purpose to state that cutaneous eruptions, in every stage from an incipient vesicle to the matured pustule, together with condylomatous excrescences and suppurating nodes, were submitted to this ordeal. In no single instance was an effect produced

* Ricord's Letters, by Stapleton, p. 57, 58.

by inoculation—a fact verifying in its fullest extent the experiments of M Ricord on those symptoms of general infection. A question has, however, been propounded, which would seem subversive of the conclusion to which those results would naturally and irresistibly force us, viz. the non-contagious properties of secondary syphilis. How does it happen that a child affected with ulcers in the mouth is capable of producing a sore on the breast of the nurse, through which the system is subsequently contaminated by the absorption of the venereal virus? or how is it that sores will be occasioned in the mouth of an infant by the ulcerated nipple of a diseased nurse, upon which symptoms denoting constitutional taint will quickly supervene? To these queries, the only reply which the present state of our knowledge permits us to give is, that such cases may be viewed as forming exceptions to the general rule. For my own part, while I freely admit that I have been unable to produce any result by inoculation from the pus of these particular sores, I am disposed to think that future investigations, directed more especially to the character of the primitive mammary ulcer, may tend to explain away some of the difficulties and clear up some of the doubts with which those interesting phenomena are at present beset. And this assurance I draw from a circumstance which always seemed to me peculiarly striking, which is, that the form of ulceration ob-

servable in this species of disease, presents a marked contrast with other varieties affecting the gland, while fissures and abrasions from local causes are often met with in and about the nipple; this specific breach assumes the ulcerated and excavated characteristic of the true primary venereal ulcer, and in some instances well-defined indurated margins are superadded.

From the foregoing observations and experiments, the following deductions may be drawn:—

1stly. That the virus of gonorrhœa is different in its nature and properties from that of chancre; inoculations from the former never giving rise to a specific ulcer; while that of the latter, when inserted beneath the skin during the stage of ulceration, is generally succeeded by the characteristic pustule.

2ndly. That abrasions of the mucous membrane are likely to ensue from the irritating quality of a gonorrhœal discharge in its early or incipient stage. That although no appreciable effects result from the inoculation of these excoriations, still mild forms of secondary symptoms have been observed to supervene on this affection, when no other species of disease could be detected on most careful and repeated examinations. In no case, however, has the matter of gonorrhœa produced venereal ulcers.

3rdly. That sufficient testimony has been advanced to prove that those severe constitutional affections, reported to have resulted from gonorrhœa

alone, have been caused by concealed urethral chancres, and not by any peculiar virus contained in the discharge; and hence has arisen the mistake of recommending the employment of mercury for the cure of uncomplicated gonorrhœa.

4thly. Sympathetic buboes, usually consequent on gonorrhœal inflammation, are uninoculable; although here a mild description of secondary symptoms is occasionally met with.

5thly. Buboes, the result of absorption of the poison of a venereal ulcer, can *generally* be inoculated, provided the operation be conducted in accordance with established rules. From the failures, however, which have occurred during the course of these experiments, I am obliged to dissent from the aphorism laid down by M. Ricord, that when applied to the diagnosis of buboes, inoculation may be considered as forming an unexceptionable and pathognomonic sign.

6thly. The superficial non-indurated primary ulcer is sometimes inoculable, at other times not; each description of sores is occasionally followed by mild constitutional symptoms.

7thly. That in the indurated and excavated ulcer, inoculation supplies a valuable and unerring test, the characteristic pustule being always the result of the operation.

8thly. That the cause of failure in inoculation of the pus, of phagedenic ulcers, has been probably owing to the time at which the matter was

taken, viz., at a period when the process of ulceration was rapidly advancing, whereas the most favourable opportunity would seem to be in the intermediate stage between ulceration and reparation, when the virus would appear to concentrate itself. The ulcer produced by inoculation is identical in its nature with that from which the pus is taken.

9thly. Secondary and tertiary symptoms produce no effect upon inoculation.

10thly. If the inoculated part be freely touched with nitrate of silver previous to the fifth-day, no ill consequences are likely to ensue.

In bringing to a close those remarks on inoculation, as constituting a differential diagnosis in the various syphilitic affections alluded to in the preceding pages, I cannot more appropriately do so than in the words of Mr. Parker :* “In the present state of science all we can say is, that certain ulcers, the result of sexual intercourse, and not distinguished by their external characters from other ulcers, equally the result of sexual intercourse, yield a characteristic pustule by inoculation ; but the ulcers which do not yield the characteristic pustule, are equally liable to be followed by secondary symptoms, and are equally benefited, under many circumstances, by mercury.”

In a practical point of view, the experiments

* “The Modern Treatment of Syphilitic Diseases.”

alluded to must be looked upon as invested with a considerable degree of interest. To the mercurialist, who pertinaciously persists in the indiscriminate employment of his so-called panacea, the facts which have been elicited by inoculation are calculated to make him pause, ere he submits to the same trying ordeal every form of ulceration which he may encounter as the result of impure sexual intercourse. To the non-mercurialist, who in endeavouring to avoid one error runs into the opposite extreme, they are designed to remind him that he cannot with safety to his patient, or with credit to himself, discard the use of a remedy, which in many cases exerts a salutary influence over the disease which he undertakes to cure. And to the practitioner who has studied aright the laws which regulate the animal economy in health and disease, and has reflected upon the effects of the introduction of animal poisons into the system, they are destined to enlarge those ideas to which reasoning and analogy have led him, and to point him to a scientific and more enlightened mode of treatment. The charlatan shall then no longer lay claim to the legitimate province of the surgeon, as syphilis shall be no longer the *opprobrium* of medicine.

CHAPTER III.

ARE VENEREAL DISEASES PRODUCED BY A PLURALITY OF POISONS?

THAT the different forms and varieties of venereal diseases which are met with in practice, are the products of different and dissimilar morbid poisons, is an opinion that was first put forward by Mr. Hunter; and the observations and experiments of later pathologists, among whom may be mentioned Dr. Adams, Mr. Abernethy, and, more recently, Mr. Carmichael, tend to confirm the truth of that particular doctrine. But before offering any suggestions of my own on the subject, I shall proceed to adduce some of the most stringent arguments which have been employed for and against the theory, as it is termed.

In all our investigations into the laws which regulate the animal economy in its healthy or normal condition, as also into those to which diseased or abnormal structures are subservient, it is essentially necessary that, in a true philosophic spirit of research, we should bring to the task

minds unwarped by prejudice and unbiassed by preconceived opinions ; but to unfetter the understanding from the chains which early education has thrown around it, is not always a point easy of attainment, or agreeable to the tastes of those to whose lot the solution of difficult or disputed questions so frequently falls. And it is doubtless by this tenacious grasp, which, tendril-like, to a greater or less extent, entwines itself around all our ideas, that the progress of science from the early history of literature has been retarded more than by any other cause ; and while the chaplet durst not be withheld from the brow of the indefatigable votary, too often have we had cause to mourn over the labours of a gigantic mind. Nor is this remark only applicable to former and darker ages ; but even in this our own day, when the rapid strides of knowledge in every department have been only equalled by the numerous appliances which inventive genius has discovered, to facilitate the end to which all our investigations should be directed—truth—the very facilities afforded would in many cases seem to form an obstacle to the advancement of those particular researches, for the elucidation of which they had been originally designed. In medicine, take for example the microscope, an instrument which, in the hands of the well-tutored and unbiassed pathologist, has constituted an important agent in revealing to us facts, which but for its aid might for ever have remained encircled

by impenetrable mists of obscurity, or veiled by still deeper and inexplicable clouds of mystery—even here the force of prejudice not unfrequently directs the eye, and the evidence of sense retreats to give precedence to the more powerful and absorbing influence of early association. And this is an occurrence which, in the consideration of the subject before us, we have too often reason to deplore.

The grounds which induced Mr. Hunter to promulgate the doctrine of a plurality of poisons, were based upon the supposition that some affections, which he termed “diseases resembling syphilis,” were cured without the aid of mercury; while others, which he stated bore the characters of genuine syphilis, required mercury for their removal. And this idea was followed up by Mr. Abernethy, and the same diagnostic test was applied by him to distinguish syphilis, properly so called, from a class of disorders which he denominated “pseudo-syphilitic diseases,” the former never disappearing spontaneously, but requiring mercury for their cure; the latter being usually subdued by the unassisted powers of the constitution. But these arguments in favour of the plurality of poisons, considered at one time so conclusive, are now generally admitted to be powerless; recent investigations,—the multiplied results more especially of military practice,—have proved to demonstration that every species of syphilis, primary, secondary, and tertiary, can be cured without having

recourse to mercury ; and further, I think it will be conceded by any impartial reader, who will take the trouble of examining into the particulars of those cases recorded as non-syphilitic both by Mr. Hunter and Mr. Abernethy, that the greater portion of them were consequent upon the absorption of the venereal virus, although not amenable to the test upon which they relied in forming their diagnosis. Thus this argument, derived from the effects of mercury, falls to the ground.

The second argument adduced in favour of a plurality of poisons, is maintained from historic evidence. In a previous chapter, I endeavoured to shew that venereal diseases existed from the earliest period of the world ; but, at the close of the fifteenth century, symptoms of an intractable nature manifested themselves, which astonished the practitioners of that day, and struck terror into the hearts of those affected with the disorder. If, then, it be admitted as an established fact (which few who have carefully examined historical records will, I think, be disposed to deny), that venereal affections date from the most remote period of the world, from the time when promiscuous intercourse first prevailed, and that symptoms of a novel and inveterate description made their appearance about the period of the discovery of America by Columbus ; it is not, I conceive, a mere begging of the question to affirm, that the former and milder varieties of the disease still exist, to which graver

and more uncontrollable characters have been superadded. Against this proposition, the only statement that I can discover is, that there is no line of demarcation between the former varieties of disease and those introduced at the close of the fifteenth century ; that the exacerbation occurring about this time can be explained upon pathological principles, by assuming that the same law of periodicity applies alike to these affections as to other diseases. Thus, it has been observed that to a combination of causes, as filth, atmospheric influence, unwholesome localities, intemperance, &c., can be attributed those occasional periodic exasperations which are so frequently observed to characterize diseases, especially of an epidemic nature ; and in proof of this position, the following dates have been assigned by Fallopius, at which periods the disease has been stated to have broken out with more than usual violence :—

1st. At the siege of Naples in 1494.

2nd. In 1516, at which time its destructive ravages extended over a period of ten years.

3rd. From 1526 to 1540, inclusive.

4th. From 1540 to 1550.

5th. From 1560 to 1610.

At each of the foregoing epochs, different new symptoms are said to have been observed for the first time.

The third argument advanced in support of the

doctrine of a plurality of poisons, is based on the supposition that each peculiar primary ulcer is succeeded by its own peculiar train of secondary and tertiary symptoms. It has been stated, for example, that a papular eruption, inflammation of the fauces, with enlargement of the tonsils, pains resembling rheumatism, and, occasionally, enlargement of the cervical glands, are symptoms consequent upon a superficial, non-indurated ulcer; that pustular spots, terminating in mild, superficial ulcers, characterized by a speedy disposition to heal, result upon an ulcer denoted by a smooth surface and elevated margins; that an eruption assuming the character of rupia prominens, and terminating in ulcers evincing a phagedenic or spreading disposition, destructive ulceration of the posterior part of the pharynx, caries and exfoliation of the bones of the nose, severe pains in the joints and shafts of the bones, ending in obstinate nodes, are symptoms usually consecutive upon the primary phagedenic ulcer; and that a scaly eruption, excavated ulcers of the tonsils, pains in the head and shafts of the long bones, succeeded by nodes, result upon the indurated and excavated primary ulcer. To this classification it has been urged that such a uniform train of symptoms, succeeding to certain well defined, primary sores, is opposed to general experience; that it is no uncommon coincidence to find in the same indi-

vidual the papular, scaly and tubercular forms of eruption combined, and, in another, the tubercular and scaly; that the occurrence of a papular and scaly eruption in the same individual is a fact of almost daily observation; again, that, in relapse cases, each and every form of eruption may be present at stated intervals, as the result of one primary infection; and, lastly, that every form of primary, secondary and tertiary syphilis is likely to be modified by the constitution, habits and mode of living of the patient.*

Such, then, are the principal arguments adduced for and against the theory of a plurality of poisons; but, without pretending to settle either in the affirmative or negative that much vexed question, I would merely propose for the mature consideration of the practical, and more especially the hospital surgeon, the following interrogatories. And although I feel assured that, to the majority of observant and well educated practitioners, self-evident responses will at once suggest themselves; I have, nevertheless, in order to guard against any misunderstanding, deemed it advisable to supply those answers with which close observation and an extensive hospital experience have furnished me.

* In alluding to this subject, Mr. Rose, in the 8th vol. of the *Medico-Chir. Transactions*, observes: "Although the character of the primary sore may, like that of any other ulcer, be modified by a variety of causes, it is not easy to suppose that these can also account for the great difference in the secondary symptoms. Can the influence of constitution alone enable

1. What form of primary infection is most commonly met with in hospital and private practice ?

2. What is the most usual form of eruption presented to the notice of the surgeon ?

3. How often do we now encounter, even in the most extensive range of practice, the genuine indurated and excavated ulcer of Hunter ?

4. To what extent are we called upon to treat from its commencement the true scaly eruption, and how often do we meet with the excavated ulcer of the tonsil ?

5. In what proportion do we observe the phagedenic primary ulcer ?

1. The superficial ulcer, destitute both of induration, and of any considerable degree of excavation.

2. The papular ; the frequent occurrence of which has gained for it in this country the *soubriquet* of popular.

3. Out of upwards of 300 cases of primary ulcers, the characters of which I accurately noted, I have been only enabled to collect thirty which could be strictly classified under this head.

4. This species of eruption is extremely rare, the desquamating stage in which the majority of eruptions terminates, has been frequently but erroneously confounded with it. The tonsilitic ulcer is likewise of unusual occurrence.

5. Out of upwards of 300 cases of primary infection, I have met with but ten which assumed this character from the *commencement* ; but I have treated many, which, although not phagedenic at the onset, degenerated into that state from neglect, local irritation, and other causes.

the same poison to produce a papular eruption in one individual, and a pustular and exanthematous or a scaly eruption in another? This, at least, does not happen in any other disease arising from a morbidic poison."

6. What ratio do rupia, nodes, and caries of the nasal bones bear to the great bulk of venereal cases which are daily presented to our view?

6. Rupial eruptions are by no means common; nodes are of more frequent occurrence; but I have never met a case of caries of the nasal bones as the *uncomplicated* sequela of syphilis.

To such as have attentively observed the different phases under which these affections present themselves, the frequency of some and the comparative rarity of other well-marked symptoms are points which must have oftentimes arrested attention; and the question naturally suggests itself, whence this variety? Are the modifications which are continually exhibited in this disease the results of wild and ungovernable freaks of nature? and has the constitution of the sufferer, contrary to every pathological principle, been selected as the play-thing of a series of blind and ill-directed casualties, subservient to no recognisable control, and amenable to no fixed scientific laws? "The general belief is, that the same poison produces these different forms of eruption, which in mildness and virulence appear the very antipodes of each other. If they are both the product of the same virus, then we must believe that the venereal is an exception to all other morbid poisons, and must agree with those who consider it a disease *sui generis*, or totally unlike to any other. But when we look a little deeper into the subject, perhaps you will

agree with me that it does not form an exception. Those who are of opinion that there is but one venereal poison, which produces all the varieties we see both in primary as well as secondary symptoms, account for these varieties by assigning them to difference in constitution, or to that of the state of health of the patients at the time of receiving infection. Now, I am willing to admit that both primary and secondary symptoms may be greatly modified by age, constitution, mode of living, and treatment, both local and general; but I contend that none of these causes will produce the great difference which is obvious between this mild papular form of venereal disease, (from which the patient will certainly recover, except under the grossest mismanagement) and this virulent, destructive eruption of rapid and extensive phagedenic ulceration of the skin, from which it is often doubtful if the patient will ever recover, even under the most judicious treatment. I might as well admit that the difference in constitution would in one person, from the same poison, cause an eruption of measles or mild chicken-pock, and in another the worst form of confluent small-pock. But if these differences which venereal eruptions exhibit were owing to those causes assigned, we ought to see the phagedenic disease constantly assailing the broken-down drunken debauchee, and the mild form only attacking the young, healthy, and robust. This, however, is so little the case, that according to my

experience, both these classes of patients are indiscriminately liable to both these forms of disease."*

I have been long since firmly convinced, that the principal cause that tends to create such a discrepancy of opinion, in reference to the unity or plurality of venereal poisons, arises from the fact that surgeons are too apt, in the anxiety which they naturally evince for a speedy and effectual cure of the patient committed to their charge, to overlook the precise nature of the primary affection ; and consequently, when called upon to treat the same individual for secondary or tertiary symptoms, not having previously noted the character of the primary sore, they are unable to trace the connexion existing between it and subsequent accessions of the disease. I do not, however, go the length of asserting that every form of primary sore is followed (when secondary symptoms succeed) by a peculiar, uniform, and uninterrupted train of symptoms. This would be stating what is not verified by experience, as we occasionally meet with a mixture of two or more different varieties of eruption in the same individual. But in such cases, I contend that the leading features of the secondary cutaneous disease, will be sufficiently characteristic of the eruption usually consecutive on a certain description of primary sore. Thus, for example, we sometimes meet with a papular

* Carmichael's Clinical Lectures, pp. 12, 13.

and pustular eruption succeeding to a simple non-indurated primary ulcer ; but in this instance it will be generally apparent, even to a casual observer, that more than two-thirds of the eruption consist of papulæ, through which a few pustular spots have been thinly interspersed. The same may be remarked throughout the other varieties ; but the distinctive traits will be always sufficiently universal to be easily recognisable. While, therefore, I fully concur in the observation of Mr. Carmichael, " that in a practical point of view, it is of no moment whatsoever whether the different groups of venereal symptoms which congregate together arise from different poisons, or from other causes not very obvious, provided we make ourselves acquainted with the characters and dispositions of primary affections, and also with the grouping of constitutional symptoms, assigning to each that mode of treatment which experience has indicated to be the most judicious ;" I cannot close my eyes to the fact, that there is evidently a connecting link between primary and secondary affections, which would go far to prove that these diseases are subservient to certain fixed although not immutable laws.

But it has been affirmed, that inoculation has set at rest for ever the theory of a plurality of poisons. In referring, however, to a previous chapter, it will be seen that Mr. Ricord's experiments, as also some instituted in this city, have

furnished proof to the contrary. In the cases of primary phagedenic ulceration alluded to, the inoculated part assumed an appearance identical with that from which the matter had been taken—presumptive evidence, at least, that the virus generated by the simple primary ulcer and the phagedenic sore, is as dissimilar in quality as it is different in its effects ; the one producing a mild description of pustule, amenable to certain topical applications ; the other ending in a destructive species of ulceration, which not unfrequently sets at defiance the best regulated remedial appliances. To me, then, it would appear that inoculation, instead of being antagonistic to the theory of a plurality of poisons, may be fairly adduced in support of that particular doctrine.

It is greatly to be feared that in dealing with the subject of which this chapter treats, too much sectarian spirit has been displayed by those who from time to time have entered the lists as controversialists ; and the attention of too many of the disputants has been occupied in contending about words, rather than in elucidating the more obscure pathological phenomena of the disease, or giving to the profession the practical results with which an extensive field of inquiry may have supplied them. May we, then, hope that future laborers in this wide and interesting domain will devote their time and attention, apart from all feelings of partizanship, and in proportion to the opportunities afford-

ed them, in cultivating the study of a class of maladies whose protean forms have so long defied the penetration of the most acute and diligent investigations, and around which still hangs a cloud of comparative obscurity and mystery.

CHAPTER IV.

GONORRHŒA * IN THE MALE.

CONSIDERABLE perplexity and confusion have been caused both by British and continental writers in the description of this disease, and the stages into which each, according to his peculiar ideas, deemed prudent to divide it. I have therefore made choice of the following classification, which in my mind possesses the advantage of being at once simple, intelligible, and practical.

Gonorrhœa may be arranged under two general heads :—I. External or preputial ; II. Internal or urethral. Internal or urethral gonorrhœa may be again divided into, first, simple inflammatory ; second, purulent ; third, complicated.

1. *External or preputial gonorrhœa.* This affection is usually met with in individuals the subjects of natural phymosis, and arises in consequence of the existence of inflammation of a more or less

* I have employed this term, although objectionable as being the one most familiar to English readers.

acute nature between the glans penis and internal surface of the prepuce. It may be excited by connexion with a female labouring under simple inflammation of the vagina, a gonorrhœal or leucorrhœal discharge, and not unfrequently is the result of sexual intercourse during the menstrual period. The secretion of the glandulæ odoriferæ, when over-abundant and irritating, has been known to occasion a mild species of this affection, without exposure to infection from sexual causes. A striking example of an inveterate form of the disease, from the last named cause, came under my observation a short time since.

Case.—Whilst on a visit in the north of Ireland, I was consulted by a clergyman, the subject of natural phymosis, and of unusually active habits, for the relief of symptoms of so distressing a nature as to prevent him officiating, in accordance with previous arrangements, in his church upon that day, Sunday. Being desirous of reaching home before the appointed time, he was compelled to ride on horseback for nearly twelve consecutive hours, over a mountainous and rugged country; during which period he was exposed to the inconvenience resulting from heavy and repeated showers, and also that consequent upon wearing buck-skin trousers, the unyielding nature of which caused him a considerable degree of uneasiness, arising from the undue friction occasioned by them. Upon examination, the penis presented a swollen and distorted

appearance, and the veins of the prepuce were enormously distended. From the height to which inflammatory symptoms had attained, it was found impossible to denude the glans; and the preputial opening, from which issued a muco-purulent discharge, was contracted to the size of a pin's head. By persevering in the treatment hereafter described, all unpleasant symptoms disappeared, and a cure was effected in about three weeks.

A sensation of heat and itching in the glans penis is usually the prelude to an attack of this nature. This is quickly followed by a patchy redness, which engages the glans and inner surface of the prepuce. A discharge of muco-purulent matter, of an offensive odour, is next observed to issue from the contracted orifice of the prepuce; the inner surface of which, in common with that of the glans, is covered by a peculiar tenacious curdy matter. A similar train of symptoms, however, to those described, may ensue from inflammation, the consequence of an ulcer situated either on the glans or prepuce; but in this case a direct diagnosis may be arrived at by pressing the penis between the fingers, when a morbid tenderness is complained of, and a sensation of circumscribed induration is usually conveyed to the touch of the operator. When no ulcers are situated beneath the prepuce, the disease may be treated as a purely local affection, and a favourable prognosis may be given. If inflammation run high, so as to preclude the possibility of

denuding the glans, warm fomentations, which should likewise be injected beneath the prepuce, will be found most grateful to the patient. This mode of treatment possesses the two-fold advantage of soothing irritation, and loosening any adhesions which may have set up between the glans and prepuce. If pain be much complained of, an aqueous solution of opium, or decoction of poppy heads, may be substituted with decided benefit. When the redness and swelling partially subside, a solution of nitrate of silver, in the proportion of ten grains to the ounce, may be thrown in occasionally between the glans and prepuce, and the penis may be enveloped with compresses saturated with a cold evaporating lotion.

Sympathetic irritation is sometimes so great as to give rise to considerable pain and uneasiness in the groin; in this case, a few leeches applied to that particular region seldom fail in affording relief. Rest in the recumbent position should, during the first few days of the attack, be enjoined, and the secretions from the bowels should be particularly attended to. I have occasionally observed enlargement of the inguinal glands succeed to this form of gonorrhœa; but I do not remember having ever met with suppuration in the groin, where ulcers did not previously exist.

It has been frequently affirmed, that in neglected cases the accumulation of matter beneath the prepuce may give rise to *chancres*, which may lay the

foundation of secondary symptoms, without the existence of any other form of venereal taint. Now, if by the term chancre be meant a true specific, venereal sore, I feel convinced that such a lesion never occurs; that either the patients themselves have been the subject of previous infection, or that a syphilitic ulcer, concealed from view, and which consequently may have escaped the notice of the practitioner, has induced those constitutional symptoms which have been laid to the charge of the preputial secretion; and when, in addition, we reflect that matter taken from this source has never produced by inoculation the characteristic pustule of a venereal ulcer, strong if not conclusive evidence has, I conceive, been furnished in support of the assertion.

As *phymosis* is generally coincident with this affection, the question as to the propriety of an operation not unfrequently presents itself. The following directions may, I think, be laid down as a general rule. If the phymosis be accidental, occurring as the result of the disease, operation would be needless and unjustifiable; this, in common with other symptoms, yielding to local remedial agents. On the other hand, if the phymosis be congenital, operation is not only advisable, but in every case should be proposed; in order to guard the patient against a recurrence of the disease to which he is rendered liable by that peculiar conformation. Should the disease be permitted to

go on uncontrolled, adhesions consequent upon inflammation and ulceration will form between the glans and prepuce ; the structure of the latter will become thickened and deformed, and cancer of the organ may terminate the patient's suffering. Three different operations have been suggested, with a view to the removal of the constriction. The first and most simple, and that which I have hitherto been in the habit of performing, consists in the introduction of a director beneath the skin, along the surface of the glans, till it comes in contact with the corona glandis, the point of the director being firmly held against the prepuce. A sharp-pointed bistoury is then to be passed along the director to its extremity, and the prepuce slit up by the withdrawal of the cutting instrument. The point which I usually select for the incision is below, in a line parallel with the frænum, as less deformity is observable from the healing of the flaps in that situation. A second incision is sometimes requisite, owing to the unequal division of the internal and external portions of the prepuce. The second operation proposed is that of circumcision, and the mode pursued by M. Ricord, which I had the pleasure of witnessing on a patient under his care at the *Hôpital des Vénériens*, possesses in my mind advantages superior to any similar operation. The patient having been put under the anæsthetic influence of ether,* and the penis relaxed, a line

* The operation as described was performed in the summer of 1847, previous to the introduction of chloroform.

was drawn in ink round the prepuce, corresponding to the base of the glans. The prepuce was next drawn forwards, and seized by an assistant in the blades of a dressing forceps. That part of the prepuce beneath the forceps was held by the operator in his left hand, and an incision over the line previously marked was then made with a bistoury, which he held in his right. Instead of dividing the mucous membrane, (which still retained its integrity) by a second circumferential incision, this stage of the operation was effected by means of a single cut with a scissors on the dorsal surface of the glans to its base. The flaps were then dissected round the frænum, the removal of which in common with the flaps terminated the operation. By the aid of torsion, which was applied to the artery of the frænum, and some of its preputial branches, all disposition to hæmorrhage was effectually controlled. I had an opportunity of seeing this patient some days subsequent, when the healing process had very far advanced, without leaving after it any trace of deformity. The third operation, which has been recently proposed by Mr. William Colles of this city, is one which I doubt not possesses many advantages :—"I have been in the habit," he states, "for some time, of removing the deformity by a simple and very effectual operation. I seize the edge of the prepuce, at its fold forming the narrow band, in the left hand; and, holding the scalpel in the right, and at right angles with the

penis, I remove a circular portion of skin about a quarter of an inch wide. The outer fold of skin being loose, is then drawn back on the penis, leaving the glans covered by the inner and tighter fold. I then divide this layer about half way back, more or less, slitting it up exactly in the centre, by passing a sharp pointed bistoury under it. We have now the outer fold of skin loose, with a large circular orifice; the inner or more protracted portion, presenting also an orifice, but larger by double the perpendicular incision, which forms two angular flaps. I then turn these flaps outwards, and by a suture attach each angle to the edge of the external skin, at about a quarter of its circumference from the frænum. A slight suture at the frænum completes the operation. I then draw all forward, so as to cover the glans. In two or three days I remove the sutures, and generally find the wound healed, leaving a covering for the glans, differing in no respect from the natural and perfect prepuce, and in some cases it would be difficult to know that any operation had been performed, or that any had been required on this part."* The different operations just enumerated will likewise be applicable to inflammation of the penis, and to phymosis, the result of a venereal sore, situated beneath the prepuce, a condition to which we shall have occasion hereafter more particularly to allude.

* Dublin Quarterly Journal, February, 1849.

2. *Internal or Urethral Gonorrhœa*.—A discharge of a purulent character from the urethra of the male may present itself, without exposure to infection from sexual causes. Thus, in gouty habits, it is not an uncommon occurrence to meet with patients in whom this symptom forms a distressing item in the category of their complaints. The urine, under those circumstances, is on analysis found impregnated with uric acid. It may likewise arise in individuals labouring under inflammation of the prostate gland; or calculus, whether deposited in the bladder or impacted in the ureter; and is not unfrequently encountered in the subjects of old and neglected strictures. Again, it may originate in connexion with a female during the menstrual period, or may be produced by cohabitation with one while suffering from a leucorrhœal discharge. In children, the irritation consequent upon teething or worms may occasionally induce it. But by far the most usual cause, and that for which the medical attendant is most frequently consulted, is ascribable to connexion with a female affected with the same disease.

1. *Simple inflammatory urethral gonorrhœa*.—The precise period at which the symptoms characteristic of this, the first stage of the affection, may exhibit themselves, is liable to considerable variation; forty-eight hours have been known to afford sufficient evidence of its existence; but unequivocal proof is seldom supplied till a week or ten days after

exposure to infection. A sensation of heat and itching at the orifice of the urethra first attracts the patient's attention, to which a thin glairy discharge speedily succeeds. Upon examination, the lips of the urethra will be found more or less swollen and inflamed; and the canal itself, when pressed between the fingers, will feel cord-like and unyielding. The patient is harassed by a frequent and irresistible desire to pass water, which is accomplished with considerable difficulty and pain; and his complaints are aggravated by involuntary and irregular erections of the penis, arising from over-distention of the cells of the corpora cavernosa and corpus spongiosum.

2. After some time, symptoms succeed which demonstrate that the disease has passed into the *second* or *purulent stage*, characterized by the subsidence in a great measure of the distressing sensations just described, and indicated by a discharge of thick yellow or greenish matter from the urethral outlet. Contrary to the opinion of Hunter, the disease may diffuse itself over the entire trajet of the urethra, in which case the accompanying symptomatic fever usually attains a considerable height; and owing to this tendency, the co-existing inflammation is believed by Desruelles, and other pathologists, to be of an erythematous nature. There are certain situations, however, in which the disease would seem to concentrate itself, which may be generally determined

by the predominant symptoms. Thus, for example, when it is confined, which frequently happens, to the fossa navicularis, the patient points to this particular locality as the seat of pain when he attempts to evacuate the contents of the bladder; a morbid tenderness is evinced when pressure is applied; and, on more minute examination, a distinct induration is perceptible in this precise part. The discharge, although always observable at the orifice of the urethra, is in this instance trifling in quantity. When the inflammation is restricted to that portion of the urethra between the glans and the bulb, severe pain is experienced in passing water, the discharge is much more copious, and the intervals between the erections of the penis are much less frequent. Again, if the bulbous portion of the urethra be alone affected, pain in the perinæum, with a constant desire to void the urine, occasional tenesmus, and repeated erections, are complained of; the discharge is copious, and the stream of urine is much diminished. When the membranous portion is attacked, superadded to the above, but in an exaggerated degree, we may expect to find tenderness and slight enlargement of the testicles and prostate gland, with congestion of the spermatic vessels and vasa deferentia. An irritable state of the bladder will in all probability supervene.

The third variety, or that which I have denominated *Complicated Gonorrhœa*, is where a true

venereal ulcer is situated in some portion of the urethral canal, coexistent with a gonorrhœal discharge. This ulcer will be found to differ most materially from that form of abrasion which so frequently results upon neglected gonorrhœa ; the former being capable of producing constitutional symptoms of an inveterate nature, and exhibiting specific effects upon inoculation, whereas the latter, while it may *possibly* give rise to a mild form of secondary appearances, is incapable of propagation by inoculation. The experiments instituted by Dr. Mairion at the Military Hospital of Louvain, as also those by M. Ricord at the *Hôpital des Vénériens*, have combined to establish the authenticity of this assumption. Irrespective, however, of gonorrhœa, the urethra may be the seat of syphilitic ulcers, which, by occasioning a discharge similar in some respects to that generated by gonorrhœal inflammation, may closely simulate that disease. On no other supposition can we account for the success which is stated to have followed the exhibition of mercury for gonorrhœa, in the practice of the late Dr. Wallace of this city ; a point to which we shall have occasion again to advert, when speaking of the different varieties of venereal ulcers. I shall only here observe, that I have had frequent opportunities in the Lock Hospital, of putting beyond the shadow of doubt, in patients the subjects of indurated chancre and gonorrhœa, the total inefficiency of mercury in the latter affection. The

supervention of ptyalism was a sure criterion of a salutary change having taken place in the one, while its full establishment did not even check the progress of the other. And here we cannot avoid recalling to memory, the sentiment of a celebrated surgeon, now no more: "To compel," says Sir Astley Cooper, "an unfortunate patient to undergo a course of mercury for a disease which does not require it, is a proceeding which reflects disgrace and dishonour on the character of a medical institution."

Primary venereal ulcers, co-existing with gonorrhœa, may occupy any portion of the urethra; but the most usual seat is the meatus, extending a short distance into the interior of the canal. When confined to this situation, very little difficulty is experienced in exposing to view the diseased structure, which is readily accomplished by separating the lips of the meatus; and if further doubt exist as to the specific nature of the ulcer, it will generally be removed by applying the test of inoculation. More rarely, however, the sore is deep seated in the urethra, occupying a portion of the passage considerably distant from the meatus, and consequently removed from the view of the practitioner. In this case, the diagnosis is attended with much more difficulty, and can only be arrived at by frequent and accurate observation of the accompanying symptoms. When, on pressing the sides of the urethra, pain is complained of; when, on each repetition

of this manipulation, the uneasiness is attributable to the same precise locality, and is likewise experienced during each act of micturition ; when the discharge, instead of constantly presenting the same purulent appearance, is occasionally mixed with a bloody or sanious fluid ; and when, moreover, this unhealthy secretion is rather increased than diminished, in proportion to the cessation of the gonorrhœal symptoms ; the existence of complicated gonorrhœa, resulting on the presence and co-existence of a venereal ulcer, may be fully suspected. If, to the foregoing local indications the accession of constitutional symptoms be superadded, all speculation as to the true nature of the disease may be finally set at rest. Before proceeding to the enumeration of the consequences which may follow urethral gonorrhœa, I will endeavour to point out that line of *treatment* which I conceive best calculated to effect a cure of the different varieties already alluded to. In more than one instance I have succeeded, in simple inflammatory urethral gonorrhœa, in resolving the inflammation, and arresting the further progress of the disease, by rest in the recumbent posture, saline purgatives, and a restricted diet, with the free use of demulcents, without having recourse to any other form of treatment. With a view, however, to effect this desirable end, the patient should be seen before the inflammatory symptoms have reached any considerable height ; an opportunity which, unfortunately,

does not often present. Upon the first introduction to our patient, all the characteristics of high local inflammation, conjoined with much constitutional disturbance, are usually present. The penis is red and swollen ; the urethra unyielding on pressure ; there is a constant desire to pass water, which is effected with much difficulty and pain ; and involuntary erections of the penis produce distressing sensations. Laying aside all ideas as to the specific character of the disease, the treatment must be based upon recognised pathological principles, with a view to counteracting inflammation, the exciting cause of every unpleasant symptom. I have seldom had occasion to resort to general depletion, the use of nauseating doses of tartar emetic being found to answer every indication that could be expected from the use of the lancet.

In order to subdue local inflammation, ten or twelve leeches may be applied to the perinæum ; or a smaller number, repeated three or four times, will sometimes be found to act more beneficially. For the purpose of combating more effectually inflammatory indications, the topical abstraction of blood from the urethra, within ten inches of its orifice, has been recommended ; leeches, however, should never be applied in this situation, as the subsequent flow of matter coming in contact with the punctures will most probably give rise to foul and unmanageable ulcers ; added to which, phy-

mosis, caused by serous infiltration into the loose cellular tissue, will, in the majority of cases thus treated, be the result. It should, however, be borne in mind, that these sores induced by the gonorrhœal secretion are purely local in their effects, can never inoculate the system, and should therefore never be treated on the principle of venereal ulcers. In addition to local depletion, the patient should be restricted to a low form of diet, the use of spirituous and fermented liquors should be strictly interdicted, and barley water or flax-seed tea should be used instead; to which, if much pain or difficulty in micturition be complained of, nitrate of potash, in the proportion of a drachm to a pint of fluid, may be added. A pill composed of camphor and hyoscyamus given at bed-time will usually counteract the painful sensations consequent upon involuntary erections of the penis. Under this line of treatment, inflammatory symptoms may speedily subside, and the patient may be completely released from all unpleasant consequences. More frequently, however, the *purulent* form of the disease will now exhibit itself.

While speaking of the former variety, I studiously avoided alluding to a class of remedies which have been considered to a great extent specific in the treatment of gonorrhœa. I need scarcely add, I refer to the *balsam of copaiba and cubebæ*. Those therapeutic agents, which have been found so serviceable in the treatment of this,

the second or purulent form, I have always observed to operate most injuriously, by increasing inflammation, when prescribed in the first variety. The same objection will hold against the employment of irritating injections, which have been so often lauded as powerful auxiliaries in cutting short the progress of gonorrhœa, when used on the first accession of the disease. Inflammatory symptoms having been now subdued, the balsam of copaiba may be administered with decided advantage, either alone or in combination with cubebs. I have seen more benefit accrue from their separate employment, by alternating them one with the other. The most usual form selected for the exhibition of the balsam is that of mixture, rubbed up with mucilage; the vehicle in which it is prescribed depending upon the prepossessions of the practitioner. In this way, it may be administered in drachm doses three times a day. I am in the habit of exhibiting it in combination with liquor potassæ in peppermint water; and although the first two or three doses generally give rise to disagreeable eructations, and occasionally considerable nausea; by persevering in its use, these effects will gradually subside, and the patient becomes in every way reconciled to the remedy. It may likewise be given in drops, varying from thirty to sixty, three times a day, on the surface of a glass of white wine or lemonade. The latter mode of exhibition is sometimes most agreeable to

the patient, and best borne by those who are naturally predisposed to irritability of stomach. I have never witnessed any good effects result from its administration in the form of pill, and it seems to me equally inefficacious when given in capsules, from the very minute quantity of the drug which each envelopes. The specific powers of the balsam have been stated to have been more marked, when the medicine was employed in unusually large doses. Thus, M. Delpeeche informs us that he succeeded in arresting the progress of the disease, in upwards of four hundred individuals, by the administration of two drachms and upwards, repeated three times a day for eight days;* and Rossignol reports that a similar favourable result was effected in three hundred cases, submitted to a like treatment.† It may be well, however, to add, that the repetition of those experiments has not proved so eminently successful in the hands of others. On the contrary, intense inflammation, a profuse discharge, and not unfrequently an incontinence of urine, which bid defiance to every plan of treatment suggested for its removal, have been known to follow. The beneficial action of copaiba being considered by some pathologists to be strictly due to its direct local determination, injections of the balsam into the urethra itself have been recommended. In order to test its utility when thus

* *Revue Médicale*, t. 7, p. 403.

† *Dictionnaire de Merat et Delens*.

administered, I made trial of it in three different instances ; but after persevering in its employment for upwards of three months, I was compelled to relinquish its further use, and have ever since regarded it, when applied in this manner as a remedy, utterly valueless. From this it would appear that, previous to coming in contact with the diseased structures, a certain process of renal elaboration is set up, by which its physical and chemical properties are materially altered, and upon which its anti-gonorrhœal qualities depend.

Cubebs, although enjoying a reputation secondary to copaiba, has also been considered to exert a specific control over the discharge. I have occasionally succeeded in arresting its progress by powders composed of a drachm and a-half of cubebs, and half a drachm of powdered alum, repeated three times a day ; the astringent properties of the latter ingredient, when in combination, ensuring in a more marked degree the curative effects of the cubebs. If, within the first week or ten days from the commencement of their employment, some beneficial indication as to the therapeutic action of these medicaments be not displayed, I have found it far more desirable to discontinue their exhibition for a time, than to persevere in their administration. When resumed after the lapse of a few days, signal success, evinced by the cessation of the discharge, has not unfrequently manifested itself. Contemporaneously with, or independent

of the constitutional remedial agents alluded to, much advantage may be expected from the careful and judicious selection and management of *urethral injections*. On the other hand, when used indiscriminately, and without due regard to the accompanying local symptoms, serious and irreparable injury may be inflicted on the patient. Notwithstanding the high encomiums passed upon their peculiar adaptation in the early inflammatory stages, in cutting short the disease, I have no hesitation in affirming, that the practitioner who has the hardihood to experimentalize on an inflamed urethra, by throwing into contact with its walls an irritating and exciting solution, of whatever ingredients composed, will in the great majority of instances have deep cause to deplore the temerity and imprudence of such a proceeding.

In dealing with that formidable and highly destructive affection, gonorrhœal ophthalmia, previous to resorting to any form of local irritant, do we not adopt every appliance which topical and general means afford, for combating the inflammatory action which threatens the loss of the visual organ ; and which, if not quickly resorted to, will terminate in its total disorganization ? And is there not a similarity,—nay, does not a close analogy subsist between the anatomical and pathological conditions of *both important structures* ? In either case, the tissues primarily engaged are the same—mucous membranes ; and a like lesion—

inflammation—is demonstrable in both. In the one, owing to its delicate arrangement and high degree of organization, less time in the employment of active measures can be spared, the morbid changes running a more rapid course; while in the other, the pathological alterations are slower, and more readily arrested or subdued by appropriate means.

Of all the injections employed in the treatment of gonorrhœa, *nitrate of silver* seems to be the one upon which most dependence is placed; but considerable diversity of opinion prevails as to the exact proportion of the salt which should enter into the formation of the solution. Thus, Dr. Wallace recommends an injection composed of fifteen grains of nitrate of silver to the ounce of water; M. Desruelles, a scruple to a pint; M. Ricord, two grains to eight ounces; and Mr. Carmichael, a quarter of a grain to the ounce. The results of my experience fully accord with those of the two last named authorities, and I have seldom had occasion to increase its strength beyond the maximum proportion of one grain to the ounce, as prescribed by Mr. Carmichael; who, in animadverting upon the practice of using strong injections, as pursued by some practitioners of the present day, says the proceeding “is attended with such risk of exciting severe inflammation of the entire urethra and bladder, and all the immediate as well as secondary trains of evils attendant upon

this calamity, that I have no hesitation in saying it is a practice that cannot be too strongly deprecated."* The want of success, so frequently evinced while the patient is undergoing this form of treatment, has, I doubt not, in a great measure been occasioned by the careless and inefficient administration of the remedy ; and so impressed have I been with this idea, that when an individual applies to me for the cure of a gonorrhœa, in a stage where injections are likely to prove beneficial, I make it a rule, whenever practicable, to throw up the solution myself at least three times a week, which has the effect of educating the patient to its use, and ensuring its subsequent judicious administration. By this means, it will often happen that a patient who has gone the round of all the neighbouring practitioners, and has carelessly employed a variety of injections, without producing any decided effect upon the disease, will, when properly attended to and closely watched, speedily recover a complaint which appeared uncontrollable by the use of similar means under less careful superintendence. In some constitutions, most frequently those of strumous habit, nitrate of silver does not produce the same beneficial effects as in persons of more healthy and robust conformation. In such instances, I have occasionally derived more advantage from the use

* Carmichael's Clinical Lectures, p. 90.

of sulphate of zinc ; commencing at two grains, and gradually increasing it to five or six to the ounce of water. M. Ricord speaks highly of the iodide of iron, which he employs in proportions varying from one to eighteen grains to the ounce of water. This is, however, a preparation requiring the greatest caution to be observed in its administration, as it sometimes, even in small quantities, gives rise to intense inflammation of the urethra, and is not unfrequently productive of violent local irritation. It has been asserted that grave and serious consequences, as, for example, stricture, swelled testicle, and irritable bladder are often traceable to the use of injections. Now, if by this observation it be understood that such affections are likely to follow the indiscriminate and ill-timed employment of this class of remedies, I must to a certain extent concede the force of the objection ; but if, on the other hand, it be implied that these agents, no matter how or when employed, are in themselves the originators of the foregoing train of symptoms, I emphatically deny the validity of the assertion. It is now, I believe, very fully ascertained that long continued discharges are liable to induce such an alteration of structure, as may lay the foundation of the evils enumerated, where no form of local irritant has been resorted to ; and in proportion to the duration of the gonorrhœal flux, will be incurred the risk of subsequent urethral or vesical disorganization.

“I have found,” says M. Ricord, “that the judicious use of injections affords the most prompt and favourable results ; and that the more rapidly they cure, the less the patient will be exposed to organic changes in the tissue of the urethra ; which, as we before said, was always in proportion to the time of the duration of the disease.”* And again,—“Can it be denied that the accidents consequent upon a blennorrhagia seldom if ever exist until the end of the first week, or beginning of the second, and most generally during the third ? The abortive treatment prevents epididymitis, and all other evil attendants on the course of the disease. In fine, it is the prophylactic treatment of these diseases that should be adopted ; and, despite of that ancient prejudice originated by Bell, it must be insisted that injections are most important in the abortive treatment ; and so far from giving rise to strictures of the urethra, *they are its best preventive.*”†

Chronic inflammation of the urethra sometimes gives rise to morbid changes in the canal itself, such as excoriation of the mucous membrane, or slight induration in some isolated spots. In this case, that portion of the urethra affected exhibits an unnatural degree of tenderness, which is more acutely experienced during the act of micturition, and is sensibly recognised in the passage of a

* Ricord's Letters, by Stapleton, p. 35.

† Ibid, p. 13.

bougie. This condition, which differs essentially from that which I have denominated complicated gonorrhœa, is best removed by the use of the caustic bougie as recommended by Sir Everard Home ; which should be brought in contact with the affected part, having previously ascertained, by means of a common soft bougie, the distance the morbid point is situated from the orifice of the urethra. The introduction of the caustic bougie should not be had recourse to more frequently than every second or third day ; and should inflammatory symptoms supervene, its further use should be dispensed with till after their subsidence. The same indication may be effected by means of Lallemand's caustic-holder. But, notwithstanding the most judicious and best directed line of treatment, we occasionally encounter cases in which the discharge proceeds uncontrolled, regardless of the most assiduous care of the patient and practitioner. This state of things, alike teasing to the patient and perplexing to the surgeon, most frequently presents in individuals of scrofulous and gouty habit, especially the former ; and we often find more decided advantage from constitutional remedies, prescribed with a view to the strengthening of the generally relaxed and enervated tone of the muscular and nervous systems, than from any other class of therapeutic agents. The preparations of quinine and iron, conjoined with a generous and nutritious diet ; sea-bathing, if the season

permit, shower-baths, with friction to the lower part of the spinal column and sacrum, will in the majority of cases materially contribute to the patient's restoration. If a gouty predisposition be suspected as the cause of the prolongation of the discharge, colchicum may be advantageously prescribed. I have, at the same time, derived much benefit from the use of the actual cautery, when applied over the sacrum; the occasional introduction of bougies, smeared with an ointment composed of nitrate of silver in mild proportions; and, on more occasions than one, I have observed the happiest results from the application of the solid caustic, externally, over the line of the urethra.

In the *complicated* form of gonorrhœa, where a venereal ulcer co-exists, in addition to the treatment already detailed, the system must be brought under the influence of mercury; when, upon the supervention of ptyalism, the syphilitic sore usually heals. Sometimes, however, the ulcer continues to spread, and the urethra may be destroyed to a great extent in an incredibly short period. When this disposition is evinced, the exhibition of mercury will in all probability be attended with most destructive consequences; and if, under these circumstances, its administration be persevered in, frightful mutilation, the result of extensive sloughing of the parts, will in most cases be added.

In this instance, we must watch narrowly the local disease, and confine ourselves almost exclusively to topical remedies. Should secondary symptoms follow, they must be treated in accordance with certain rules laid down in a subsequent chapter.

An interesting case, illustrative of this complicated form of the disease, is related by Mr. Parker, the particulars of which I have taken the liberty of transcribing from his valuable treatise.

Case.—"A gentleman, fifty years of age, contracted from a suspicious connexion a discharge from the urethra, which had all the characters of ordinary gonorrhœa. He immediately placed himself under the care of an eminent practitioner, and took, for a month, the ordinary remedies, such as copaiba and cubebs; with this treatment, the discharge disappeared. At this time a slight ulceration was perceptible round the meatus, which seemed to come from within the urethra. This spread rapidly, soon involving the whole under-surface of the glans and the urethra for an inch and a half, which were entirely destroyed by ulceration and sloughing. I was consulted on this case, which was succeeded by extensive nodes, and a pustular eruption; and, what is very remarkable, the nodes were the first constitutional symptoms which occurred, an exception to the law which seems to regulate the appearance of constitutional symptoms generally. I believe," he adds,

“ the poisons of gonorrhœa and syphilis to be perfectly distinct; but yet there are cases occasionally presented to our notice, where both chancres and gonorrhœa exist at the same time.”*

* On Syphilitic Diseases, p. 100.

CHAPTER V.

DISEASES WHICH SUCCEED TO GONORRHŒA IN
THE MALE.

AMONG the many consequences which may succeed to gonorrhœa, *stricture of the urethra* has always occupied a prominent position ; and this is attributable not to the acute character of the inflammation, which is usually met with in its first stage, nor to any irregularity in the previous management of the disease, but to a neglected and long-continued discharge, which deprives the canal of its natural elasticity ; promotes the deposition of lymph, the precursor of induration ; and, finally, narrows at some given point or points the calibre of the tube destined to convey away the excretion. “ If asked,” says Sir Astley Cooper, “ what was the cause of stricture, I would say that in ninety-nine cases out of every hundred it is the result of neglected gonorrhœa ;” and although exaggerated as may seem to some the numerical calculation made by that illustrious surgeon, it nevertheless cannot fail to produce the one universal impression on the minds of all, that of the many causes which

may be said to predispose to this disease, none is so effective, none so certain and unerring in its operations, as that of a neglected or long continued gonorrhœal discharge. My late much lamented and highly esteemed master, Dr. Wilmot, whose sound practical opinions on every form of urinary affection, were only equalled by the dexterity of his manipulation in the management of those instruments which constitute the mechanical means adopted in the removal of urethral obstructions; and who was looked up to by the profession in this country, as no mean authority on every subject pertaining to this branch of special pathology; records it as his opinion that "gonorrhœa stands foremost in the list" of causes engaged in the formation of stricture.* And when we further consider what class of individuals generally present themselves to our notice as the subjects of stricture; when, in the majority, we are enabled to trace indisputable evidence of a scrofulous habit; we will be at no great loss to apprehend why it happens that the one affection should stand in relation to the other as cause and effect; having previously seen that the strumous diathesis favors to an enormous extent the prolongation of the gonorrhœal discharge.

In order clearly to understand how it happens, that a narrowing of the urethra may result as a sequela of gonorrhœa, it will be necessary to bear

* Dublin Quarterly Journal, May, 1848.

in mind the anatomical disposition of the parts ; to remember that the urethra is surrounded in some portion of its course by muscular fibres, which have the power of compressing the canal, and contracting upon the application of a stimulus ; and that the property of organic contractility is possessed in a high degree by its investing membrane ; thus enabling it, irrespective of the intervention of the will, to contract on the approach of a stimulus. This latter tissue is connected, like all others of a similar nature, to the subjacent parts, by a sub-mucous serous tissue, which is not unfrequently the seat of effusion. Strictures may occur in any part of the urethral canal, and although usually limited in extent, may reach from the meatus to the prostatic portion of the tube. They are most commonly, however, restricted to the commencement of the bulb, the membranous or muscular, and the prostatic portions of the urethra. The various obstructions which are met with in the urethra have been classified, according to their supposed nature or cause, into *spasmodic*, *inflammatory*, and *permanent*. A *mixed* form has likewise been recognised, in which each participates to some extent in the characters of the other. Thus, a stricture may be partly spasmodic, partly inflammatory, and partly permanent. In addition, numerous subdivisions have been made, founded principally on the fancied similitude of the obstructions to material objects. To enter upon this

detail, which will be found in most of the elementary works, is beside my present purpose.

Stricture is generally insidious in its origin, and is preceded by symptoms denoting a diminution in the natural elasticity of the urethra, such as the retention of a few drops of urine, when the patient is under the impression that he has fully evacuated the bladder ; after a short time, the calls to pass water become more frequent, and the act of micturition is finally attended with more or less difficulty, owing to some opposition which the fluid encounters in its progress through the canal ; the stream is altered, and instead of flowing in a full jet, is thrown with inequality of force, and is usually split or divided. If, during the incipient stages, characterized by the atonic state of the urethra, the judicious employment of bougies or catheters (the former gum elastic instrument will in most cases be preferable) be resorted to, the stricture may be arrested in its progress, and thereby prevented from degenerating into a permanent obstruction. It is, I believe, generally admitted, that in the commencement of the formation of every permanent stricture, resulting upon gonorrhœa, there exists not alone a physical impediment arising from chemosis and subcutaneous effusion ; but likewise a certain amount of spasmodic action is superadded, which multiplies the difficulty not unfrequently encountered in the passage of an instrument, and which is often sensibly increased by this manipulation.

It will, however, be absolutely necessary, in order to regulate our subsequent treatment, to draw a line of demarcation between the spasmodic and inflammatory varieties of the disease ; the following points of diagnosis may serve to distinguish them. A spasmodic stricture makes its appearance suddenly in an individual usually of delicate and irritable habit, who, while labouring under gonorrhœa, is guilty of some excess in the use of vinous or spirituous liquors ; and it is unattended with pain. During the paroxysm, the pulse is frequent but not strong, the penis is devoid of any appearance of turgescence, and the prepuce exhibits but a mild degree of vascularity. The gonorrhœal irritation, extending to the bulbous and membranous portions of the urethra, excites so much spasmodic action of the surrounding muscles as to cause complete retention of urine. This latter condition is brought about by the contraction of the anterior fibres of the levator ani muscle, described by Mr. Wilson. On the other hand, an inflammatory stricture usually occurs in a sanguineous or robust habit ; is accompanied with excessive pain in the course of the urethra, with an inordinate desire to pass water ; the pulse is strong, but not much accelerated, and the penis is turgid and distended. When called upon to *treat* a patient for spasmodic stricture, much caution should be observed in the use of instruments. A gum elastic bougie or catheter should be gently

passed along the urethra, till it comes in contact with the strictured part ; against which it must be permitted to rest for a few moments, when, upon the withdrawal of the instrument, a free flow of urine will in most instances follow. Sometimes, however, it will be necessary to re-introduce the catheter ; and by gentle pressure against the seat of obstruction the spasm may be overcome, and the instrument will suddenly glide into the bladder. Should any undue force now be exerted, serious mischief may be produced, the first intimation of which will be the flow of blood upon the withdrawal of the catheter. This, although in itself not always an indication that the canal has been injured, is nevertheless sufficient notification to the practitioner to desist from the repetition of similar attempts. It thus occasionally happens, that the surgeon is foiled in his efforts to promote the passage of urine by the introduction of instruments ; in this case, it will be requisite to have recourse to those means which tend to relax the muscular system generally, such as bleeding, tartarized antimony, opium, and the warm-bath. The application of cold to the perinæum, or the immersion of the body in cold water, has been known to prove successful after the failure of other remedial agents. I have also seen decided benefit result upon the administration of the tincture of muriate of iron, given in doses of from ten to fifteen drops every ten minutes; its salutary effects

seem to depend upon the nausea which it occasions. The surgeon who resorts to force, in order to effect an entrance into the bladder, through a spasmodically contracted urethra, without having previously employed those appliances which are calculated to relax muscular action, lays himself open to well merited censure ; and will in all probability entail upon his patient a life of misery and despair.

As illustrative of the opposition which may be encountered by muscular contractility to the passage of an instrument, I subjoin the following instance, which I extract from the case book of my late father, for many years surgeon to the Lock Hospital:—

Case.—"I was suddenly summoned to visit a gentleman residing in Castle-street, about thirty years of age, and the subject of gonorrhœa. On my arrival at the house, I found with him a surgeon of high respectability, who was living in the neighbourhood. The gentleman alluded to proceeded to tell me what I myself saw, that he had tried with various sized catheters to draw off the water, but in vain. I now also attempted to pass a very small gum elastic catheter, but with no better success, when it was agreed that the patient should be taken to a warm bath in the neighbourhood. He was accordingly conveyed in a carriage, and placed in a bath of about ninety degrees in temperature. After a lapse of ten minutes, I proceeded to bleed him from a large orifice in the arm,

with the intention of inducing syncope. This object, however, I did not effect ; and on attempting to pass the instrument, I was again defeated. As a last resource, I prescribed a tobacco enema ; and in the meantime, as the case was urgent, the surgeon in attendance was of opinion that without further delay we should proceed to puncture the bladder above the pubis. This I refused to do without further assistance, and accordingly a messenger was dispatched for Mr. Colles. In the interval, I desired the patient to get up, and come out on the floor ; at this moment he was in an extremely debilitated state. I then took the smallest gum elastic catheter that could be procured ; and having withdrawn the stilette, proceeded to pass it along the urethra, when to my surprise and gratification, it glided freely into the bladder, and the urine was consequently drawn off. From this case," he observes, " we may learn the obstacles the surgeon must expect to encounter ; the measures which he is called upon to adopt ; and the danger of too soon giving way to the urgency of the symptoms, by resorting to an operation, which, though easy of performance, is so frequently attended with fatal results." To impress this latter remark more forcibly, I may mention that in one of the large hospitals in this city, during my apprenticeship, I saw the instruments intended to be used in puncturing the bladder laid on the stool at the patient's bedside ; when

one of the surgeons summoned to attend took up a catheter and drew off the water. In the treatment of inflammatory stricture, previous to any attempt at passing an instrument, the patient should be submitted to a strict course of anti-phlogistic management. If a contrary rule be adopted, and mechanical means be employed with a view to dilatation of the urethra at the onset of this affection, much mischief will be likely to ensue.

In complicated gonorrhœa, as in every instance where *a venereal ulcer occupies the orifice of the urethra*, stricture of an intractable nature, and one likely frequently to recur, is often met with a considerable time subsequent to the healing of the ulcer, in consequence of the contraction of the cicatrix. This termination, however, seldom presents, except where the ulceration extends in a continuous circle around the meatus. It will, therefore, be the design of the surgeon to arrest the progress of the ulcer, and prevent it from encircling the orifice. This can in most instances be effected, by the application of nitrate of silver, or the acid nitrate of mercury. When the area of the urethra becomes diminished, owing to the occurrence of stricture in this locality, the means adopted for the removal of the obstruction, when situated in other portions of the canal, will here prove ineffectual. It will, therefore, be necessary to have recourse to the following operation, proposed by the late Dr. Colles, and which has since

been practised with uniform success. The description is best conveyed in his own words:—"Having detached the skin from the end of the urethra, to which it is generally intimately adherent, I divide the urethra below, to the length of more than half an inch; I raise the mucous membrane from each lip of the incision; then cut away a portion of the bared corpus spongiosum to such an extent as will allow the raised mucous membrane to cover the cut edge. I stitch down this membrane upon the corpus spongiosum, and thus having covered each lip of the wound by mucous membrane, I have effectually guarded against the possibility of re-union of the lips of the wound, or subsequent contraction of the opening. The opening of the urethra thus produced is, of course, of a size larger than natural."*

During the progress of gonorrhœa, or as a consequence of that affection, *small indurated tumours* are frequently met with in the course of the urethra, which sometimes suppurate, and discharge their contents into the canal. They are most frequently situated in the lacuna magna, opposite to the frœnum, in front of the scrotum, or in the perinæum; and would appear to be the result of the occurrence of inflammation in these localities. They occasionally burst into the integuments, and give rise to troublesome abscesses; which, if not

* Observations on the Venereal Disease, p. 95.

promptly attended to, will terminate in unmanageable *fistulæ*; and from the tortuous and indirect communication thus established between the internal and external openings, the extravasation of urine to a greater or less amount takes place into the surrounding cellular tissue. The application of leeches, with the observance of rest in the recumbent posture, and perfect quietude will sometimes serve to resolve those tumours. If suppuration occur, a free incision should immediately be made, in order to afford full exit for the matter. *Abscesses in the perinæum*, if neglected, may, in addition to causing a fistulous opening in that situation, produce fistula in ano. As these collections of matter are for the most part observed in broken down habits, a tonic line of treatment must be pursued, and the constitutional powers supported by those means usually made available in debilitated individuals. The *fistulæ* may be treated in accordance with certain prescribed rules, to be found in all systematic surgical treatises.

Acute inflammation of the prostate gland occasionally attends upon, or presents as the effect of gonorrhœa. It is recognised by pain in the vicinity of the gland, increased on pressure; more apparent when made by the finger introduced into the rectum, accompanied with tenesmus and a constant desire to pass water, which is attended with much difficulty and pain; and upon its evacuation, a considerable degree of uneasiness is referred to

the glans penis. If the patient be labouring under gonorrhœa at the accession of this attack, the urethral discharge either ceases altogether, or is to a great extent diminished in quantity ; much suffering is displayed by the restlessness and anxiety of the complainant, and symptoms of a severe febrile character are indicated by the rapid acceleration of the pulse, and an insatiable desire for drink. If the urgency of the foregoing train of disasters be not speedily abated by appropriate remedies, complete retention of the urine will take place ; and abscesses will form in the body or around the gland, which may burst into the urethra or produce a tumor in the perinæum.

It will thus occasionally happen, that when a catheter is introduced in order to relieve the retention of urine, the admixture of pus with the water will afford evidence of the instrument having perforated a *prostatic abscess*, the existence of which may have been previously unsuspected, in consequence of the absence of rigors, the well-known precursor of abscesses in other situations. Acute inflammation of the prostate gland must be combated by anti-phlogistic measures, regulated according to the strength and constitution of the patient, of the most prompt and decisive character. Bleeding generally and locally, fomentations to the perinæum, the warm hip-bath, gentle laxatives, and emollient enemata should in the first instance be directed. By the adoption of these measures, the

inflammation may be completely subdued, the free flow of urine promoted, and the individual's health and spirits may be permanently re-established.

The employment of these means is not, however, invariably crowned with success ; and the inflammation, instead of terminating in resolution, may run on to suppuration ; the matter discharging itself either into the urethra, or making its way towards the perinæum, where a tenderness on pressure, and fulness on close observation, will demonstrate its existence beneath the fascia ; the resistance and tension of which will frequently prevent its pointing until extensive disease has been effected in the adjacent structures. As soon, therefore, as there is the slightest intimation of the formation of matter in the perinæal region, a free incision should be made ; which will be productive of the two-fold advantage, of relieving the pain caused by the tension of the fascia, and establishing an outlet for the escape of the purulent secretion. The exhibition of mercury, so as to induce a mild degree of salivation, will, in conjunction with the topical treatment, materially contribute to the subjugation of existing inflammation, and tend to restore the gland to its original healthy condition.

During a protracted, or long continued urethral discharge, a certain amount of *irritability of the bladder* is manifested. The patient is harassed with an almost constant desire to pass water, the

quantity voided being always of necessity trifling, and not unfrequently tinged with blood ; a sense of extreme lassitude and pain is referred to the loins, and much uneasiness is experienced at the extremity of the penis, and about the verge of the anus ; considerable constitutional disturbance is evinced, and loss of rest from continued irritation adds to the patient's sufferings. In this stage of the complaint, owing to the urgent nature of the symptoms, suspicion of calculus in the bladder has been frequently excited in the mind of the medical attendant ; who, in his search after a foreign body, has been known to exasperate the individual's already miserable condition, by the introduction of a sound into that viscus. The diagnosis is, however, easily made, and a little reflection will soon enable us to arrive at the true character of the disease. In the subjects of stone, pain is invariably experienced when the fluid contents of the bladder have been completely discharged ; in those labouring from the effects of the complaint under consideration, the uneasiness is only present when the organ is subjected to the stimulus of the urine. The acute form of the disease, characterized by the symptoms just enumerated, after having continued for a period of longer or shorter duration, lapses into a more chronic condition. The urine presents a whey-like character, and acquires an ammoniacal odour. It is often mixed with blood, and with it are ejected flakes of coagulable lymph, and a white

tenacious mucus. Should the disease still further proceed, hectic symptoms will be superadded; the intestinal and pulmonary mucous membranes will participate in the general constitutional disturbance; diarrhœa and cough will supervene, under the combined influence of which the patient will usually sink and die. In the earlier and more acute stage of the disease, relief may be obtained by the exhibition of opium, both by the mouth and in the form of suppository by the rectum. The tepid hip-bath will likewise prove a useful adjuvant. In order to counteract the constipating effects usually produced by the opium, the mildest purgative should be employed; and none will be found to answer the purpose better or cause less irritation than castor oil. A short gum-elastic catheter introduced as far as the distal end of the urethra, but not permitted to enter the bladder, will, by affording rest to that organ, materially aid in lessening the sufferings of the patient. The instrument should be fixed in the urethra, and should not be withdrawn oftener than once in the course of the twenty-four hours. The administration of copaiba and cubebs will likewise, in this stage, be attended with marked and decided advantage. When the acute and more urgent symptoms have subsided, and the disease has assumed a chronic character, blisters to the sacrum and pubis, (the hair having been previously removed from the latter) together with an alterative course of mercury,

may be judiciously prescribed. Infusion of buchu, and decoction of pareira brava, given either separately or combined, will serve to tranquillize the mucous surface of the bladder; and I have witnessed the most favourable results from the careful injection of tepid water into the cavity of the organ.

Inflammation of the epididymis, erroneously termed *hernia humoralis*, is one of the most frequent affections consequent upon, or occurring simultaneously with a gonorrhœal discharge. So commonly does it present in this class of patients, that M. Ricord has given it the appellation of "blennorrhagic epididymitis." The disease is generally restricted, upon its first approach, to the convolutions of the epididymis, and usually occurs about the third week after the first accession of the discharge. If not speedily arrested, the adjacent tissues of the testicle, and sometimes the gland itself, become involved. It has been very often alleged that this affection owes its origin, in a great measure, to the mode of treatment to which the individual had been subjected during the first few weeks of the urethral attack; and that in proportion to the frequency with which anti-gonorrhœal medicaments are administered, and injections employed for the cure of the original disease, will be incurred the risk of consecutive inflammation of the epididymis and testicle. That this line of reasoning is both illogical and fallacious, is demonstra-

ted in numberless instances; for although it sometimes happens that an attack of epididymitis presents itself while the patient is being treated for a urethral discharge, it much more frequently occurs that this affection shows itself in neglected cases, where no form of treatment whatsoever had been resorted to. Its manifestation in the first named class is, I presume, but a mere coincidence, which would in any event most probably take place, and can therefore never be viewed in the relation of cause and effect. On the contrary, it may be asserted, that the best and safest precaution that can be adopted, in order to obviate the risk of such a casualty, is to endeavour to cure as quickly as possible, by the employment of specific remedies, the original affection; it being now well ascertained that, in proportion to the length of duration of the discharge, will be the likelihood of the consecutive diseases of the epididymis and testicle. That this is no imaginary or hypothetical assertion may at once be seen by a glance at the statistical summary of M. Gaussail, by which it is clearly deducible that this affection most commonly presents in the fourth or fifth week from the first accession of gonorrhœal symptoms; a statement fully corroborated by the extensive observation of M. Ricord. Two varieties of the disease are described by the latter authority, and are now I believe generally recognised; the one where sympathetic inflammation seizes upon the epididymis, without

travelling along the vas deferens ; the other where the inflammation progresses along the ejaculatory duct to the vesicula seminalis, and thence along the vas deferens to the epididymis. These distinctions have been verified by post mortem examination ; and, in a practical point of view, are by no means destitute of value. During the prevalence of a gonorrhœal discharge, the patient lays himself particularly open to an attack of this affection, by inordinate exercise, too free indulgence in stimulating liquors, inattention to the promotion of the natural secretion from the bowels, and neglect of the suspender by which the testicle should be supported. Individuals in whom the scrotum is flaccid, and the cremaster muscle not well developed, are, *ceteris paribus*, more liable to affections of this kind than others, and where but one testicle is attacked, that on the left side most usually suffers. On the accession of the disease, the urethral discharge is usually very much diminished, but seldom entirely disappears. As the severity of the symptoms of the epididymitis subside, the gonorrhœal symptoms are gradually re-established. Formerly, a patient labouring under the consequences of this malady was subjected to a long and teasing course of general and local treatment ; venesection, topical bleeding, fomentations, poultices, and a variety of lotions were put in requisition ; the individual's recovery was sensibly protracted ; and debility of long duration was of necessity subsequently superadded.

Such a mode of procedure is now rarely if ever resorted to ; and general depletion, instead of expediting the patient's recovery, is well known to retard the progress to convalescence,—a circumstance by no means surprising, when we consider that the concomitant inflammatory indications partake more of an irritable than of a sthenic character. In order to obviate the tediousness and various inconveniences attending the common mode of treating inflammatory affections of the testicle, Dr. Fricke, surgeon to the general hospital in Hamburg, in a paper published in the year 1836, recommended the application of compression, by means of strips of adhesive plaster, as a substitute for every other form of remedial appliance. In recent inflammatory swellings, a simple application of the compression was found sufficient to remove the disease ; in cases of longer standing, (varying from three to eight days) it was found necessary to repeat the operation two or three times. Swelling of the spermatic chord, when not very considerable, did not interfere with the treatment ; which was only contra-indicated by a disordered state of the digestive organs, in which case the previous exhibition of an emetic was deemed advisable. The mode in which pressure is applied by this means is as follows. The *emplastrum ammoniaci c. hydrargyro*, which is that usually preferred in this country, having been previously cut into thin strips, the patient is placed in the standing posture, and the surgeon having

gently drawn down the testicle to the bottom of the scrotum, the skin of which is tensely brought over the surface of the gland, proceeds to apply the straps in a circular manner ; commencing from above at the insertion of the chord, which must be closely embraced, in order to prevent the testicle from slipping up through the loose rings of the plaster, when the lower or inferior portion is compressed. In this manner, the operator encircles the gland by a succession of straps ; the latter always lying over the former, by a third of its width, till the whole organ is covered. A second series of straps is then passed from above downwards, and in this way the entire testicle is completely enveloped and compressed. The operation should not be repeated till the straps become sufficiently loose to admit of the introduction of a scissors between them and the skin. The advantages derivable from this plan of treatment are briefly recapitulated by Dr. Fricke, at the close of his communication :—

1. The speedy removal of pain.
2. The quick removal of the disease itself.
3. The simplicity of the method, and the slight trouble thereby given to the patient.
4. The small expense of the treatment.
5. The comparatively slight care and attendance required on the part of the surgeon.*

* Zeitschrift für die Gesamnte Medicin, b. i., h. 1, 1836.

The foregoing line of practice has now been extensively tested for many years ; and, with one exception, where its aid was obliged to be dispensed with, on account of the supervention of long continued pain, I do not remember having witnessed a case in which its employment was not followed by speedy and permanent relief, and in which the integrity of the affected part was not quickly restored. Nor must it be forgotten, that among the many advantages resulting from its adoption, a boon of no small consideration is conferred in the majority of instances upon the patient, by enabling him to follow his ordinary avocations without the sacrifice of time or convenience, annoyances inevitable to a tedious and protracted confinement. But this is not all ; the employment of well regulated compression may likewise be regarded as a powerful preventive against effusion into the tunica vaginalis ; and it now very rarely happens that hydrocele, formerly a disease of such frequent occurrence, exhibits itself as a sequence of this species of inflammation. From inattention to remedial measures, more especially the neglect of the suspensory bandage, the testicle itself may become engaged, and an enlargement of the gland ensue. This condition not unfrequently depends upon an irritable state of some portion of the urethra, and is best combatted by the occasional passage of a bougie. Should the proportions of the testicle still continue to increase, or remain in a state of indolent or

chronic enlargement, alterative doses of mercury, alternated with the iodide of potassium, will be found most beneficial. It sometimes, though rarely happens, that suppuration of the organ follows as a sequela of this affection. When this unfortunate complication is about to exhibit itself, the gland becomes peculiarly hard, tense, and painful; the skin covering it assumes a shining and pointed appearance; and if not interfered with by the surgeon, the integument will give way, purulent matter will be discharged, and the integrity of the gland will be seriously impaired. A fungus will now protrude from the cavity in the scrotum, and if not checked by escharotics, will attain a considerable size. The application of solid nitrate of silver, however, will seldom fail in arresting the growth. Considerable danger to the sound testicle is in this case to be apprehended; and it not uncommonly happens that, after a time, disease will be detected in it also.

Gonorrhœal Rheumatism.—During the progress or towards the termination of a gonorrhœal discharge, the patient is occasionally attacked with pain and swelling of the joints. This, unlike the more common forms of rheumatism, is unaccompanied by any febrile excitement; and although a considerable degree of effusion may have taken place, no amount of constitutional disturbance will be observable. Another peculiarity has been noted, that it seldom happens that more than one joint is

attacked at a time ; and that during the paroxysm the urethral discharge is either materially diminished in quantity, or altogether arrested. It not unfrequently occurs that the pain is referred to the muscles, more particularly those covering the shoulders and hips; and this is looked upon by some as a different variety of the affection, unconnected with disease of the fibrous tissues. The treatment consists in the use of colchicum and opium, with the use of the vapour or warm bath. Should effusion to any considerable extent have resulted as the consequence of synovitis, leeches and counter irritants may be applied with much advantage to the affected part. In cases of retrocession of the discharge, it has been recommended to resort to the introduction of bougies smeared with gonorrhœal matter. Of the utility of this latter line of treatment, I cannot speak with any degree of confidence.

Case.—In the summer of 1843, I was consulted by a middle-aged gentleman for a gonorrhœa, complicated with a severe form of phymosis. Owing to this latter circumstance, inflammatory symptoms ran high for the first few days of the disease; upon their subsidence, the left ankle was attacked with excruciating pain, accompanied with considerable redness and swelling; on its restoration to its normal condition, the knee of the same side, in a few days afterwards, was similarly effected; and, lastly, acute sclerotitis terminated this form of

erratic rheumatism. The urethral discharge was very much diminished during the continuance of these attacks, but on their disappearance was completely re-established.

Gonorrhœal Ophthalmia.—This highly destructive form of disease, which is now happily but rarely encountered in this country, owes its origin to two different causes ; the first and most usual being that of direct contagion, and the second resulting on metastasis. A third variety, consequent on sympathetic irritation merely, is described by Mr. Lawrence, the existence of which would seem rather hypothetical. Dr. Vetch, no mean authority on ophthalmic surgery, though he recognises contagion as a source of the disease, denies that the matter taken from the urethra of the infected patient can produce any effect in the same individual. Numerous instances, however, occurring in the practice of others, have demonstrated the fallacy of that position.

My distinguished friend Dr. Graves, to whose valuable researches I shall have occasion hereafter to allude, makes the following remarks in speaking of this affection:—“With respect to the production of a violent and destructive purulent ophthalmia, in consequence of the application of gonorrhœal matter to the eye, there can be no doubt whatsoever. Mr. Lawrence cites many examples, and I have seen several. Thus, some

years ago, a poor woman made use of a vessel soiled by gonorrhœal matter to wash her own face and two of her young children. They all got purulent ophthalmia, and two left this hospital blind. On the whole, gentlemen, I think we can very safely draw the following conclusions concerning gonorrhœal ophthalmia. 1st. A species of severe ophthalmia may be produced through the medium of the constitution, in persons liable to gonorrhœal rheumatism or arthritis. This species attacks the conjunctiva, sclerotica, and internal tissues, and resembles gouty and rheumatic ophthalmia. 2nd. Another dreadfully violent species of ophthalmia is produced by the contact of gonorrhœal pus. This closely resembles Egyptian ophthalmia. 3rd. It is probable that another and a much milder species of conjunctivitis is produced by the contact of gonorrhœal discharge of less violence; and such was the opinion of the celebrated Beer. The fluid taken from the variolous pustule or the vaccine vesicle, during their early stages, will not communicate their proper infection. In the same way, the discharge from an incipient or declining gonorrhœa may act very differently on the eye, from the puriform fluid secreted by the urethra during the acme. The only doubt which remains on my mind with respect to this milder conjunctivitis, is whether it, too, may not be produced through the constitution. We have seen that a violent ophthalmia and arthritis may thus arise; and,

consequently, we can easily imagine it possible for the same cause to give rise to a constitutional impression, capable of originating a mild ophthalmia, unaccompanied by arthritis.”*

This affection seldom presents itself at the onset of a gonorrhœal discharge ; the worst forms of it have been observed when the primary complaint was on the wane. On its first accession, the patient complains of a degree of uneasiness similar to that occasioned by particles of sand ; and, upon examination, the palpebral conjunctiva of the lower lid is usually much injected. The inflammation rapidly extends to the other tissues ; the conjunctival mucous membrane exhibits a brick-red hue ; and the whole surface of the eye becomes speedily engaged. Intense pain is now experienced both in the globe and supra-orbital region ; lachrymation is abundant, and attended with an acrimonious scalding ; an erysipelatous hue fixes on the upper lid, œdema into the cellular tissue of which follows, and the eye becomes completely closed. The secretion, which was at first slightly yellow, now becomes dark and brownish, and as disorganization advances, is deeply tinged with blood. Granulations form on the velvet surface of the mucous membrane ; the cornea loses its lustre, softens, and purulent deposits take place within its layers. From the rapidity with which these changes pro-

* Clinical Lectures, 2nd edition, p. 401 2.

ceed, varying not unfrequently from twenty-four to forty-eight hours, prompt and energetic measures are at once demanded. Dr. Mairion, of Louvain, in speaking of gonorrhœal ophthalmia consequent upon direct contact, states that he has discovered a symptom which he looks upon as extremely valuable in a diagnostic point of view, namely, the existence of a small round or oval tumour beneath the skin, peculiarly sensitive to the touch ; situated in front of the ear of the affected side, and consisting of an enlarged lymphatic ganglion. This he terms "*bubon-pre-auriculaire*;" and as he has met with it in nine cases where he was clearly able to trace the disease to contact ; and further, as he remarked its absence in some hundred instances of purulent ophthalmia, unconnected with gonorrhœa, he is inclined to look upon it as a symptom pathognomonic of this form of the disease.*

Treatment.—Depletion, local and general, should be had recourse to without a moment's delay ; and in order to produce an immediate effect upon the system, Mr. Lawrence is of opinion that a second bleeding should be taken from the arm, as soon as the circulation will permit of it. Relays of leeches at short intervals must at the same time be applied to the temples and behind the ears, until

* De l'Ophthalmie Gonorrhœique, Louvain, 1846.

the vascular congestion is relieved. When this effect has been produced, a strong solution of nitrate of silver should be dropped into the eye three or four times daily ; and M. Ricord recommends the application of a solid stick of the caustic to be passed over the affected surfaces, so as whiten without destroying them. The local effects of this line of practice he thus describes:—"The secretion for the moment is arrested, but the instant that the film formed by the nitrate of silver is detached, a secretion at first clear, and subsequently sero-sanguinolent, commences, such as we find follows injections of the urethra, in the abortive treatment of gonorrhœa. As long as little whitened tufts exist on the surface of the membrane—consequences of the cauterization—and as long as the liquid secreted has not re-commenced to be purulent, the good effects of the caustic are evident ; but the moment these little tufts have disappeared, and the secretion has resumed its former characters, we may infer that the effect of the former cauterization has ceased, and it is necessary to re-apply the nitrate of silver in the same way as before. The surgeon may re-apply it three times in the course of the day."* The exhibition of mercury in the earlier, or more acute stages of the disease, has been justly reprehended. It causes

* Gazette des Hôpitaux, 1848.

useless delay, and is usually productive of mischievous rather than salutary consequences. In the more advanced or chronic stages, it may be advantageously resorted to. Dr. Wallace recommends the employment of balsam copaiba, or cubebs internally, which he seems to think possesses in this as well as the urethral form of the disease, a specific influence; but experience has verified the fact, that anti-gonorrhœal medicaments exert no control whatever over this affection. Acting upon the same principle, but proceeding much further with the speculation, an English provincial surgeon advises the topical application of a solution of the balsam in the proportion of a drachm to a pint of water; and details the history of two cases (?) in which, after "*many weeks*," a cure was effected!*

When the disease is complicated with chemosis, Mackenzie and others recommend excision, which is effected by means of a curved scissors. This procedure has the result of unloading the vessels, and thereby relieving congestion. When all other remedies fail, M. Sanson resorts, with a view to the destruction of the secreting organs, to excision of the conjunctiva; an operation attended with intense momentary suffering; which, however, speedily abates on the application to the excised parts of a pencil of nitrate of silver. When the disease is supposed to be consequent on

* Lancet, October, 1848.

metastasis, nearly a similar line of treatment as that employed in the rheumatic variety has been prescribed, viz., the restoration of the discharge, by the introduction in this case, into the urethra, of the pus from the eye. This practice is sanctioned by Beer, Swediaur, Richter, and Scarpa. "Surgeons," says M. Ricord, "who think the disease principally depends upon metastasis, have always attempted to recall the affection back to the urethra, by re-inoculating the patient with the pus from the eye, or from some other patient. This is very dangerous, as it is possible to inoculate the patient with a chancre, if another individual be chosen; for the surgeon cannot say but what there may be a chancre in the urethra of another. Some surgeons have recalled the discharge by passing a catheter. It almost invariably happens that the discharge in the urethra diminishes in proportion as the eyes begin to be affected; but it never entirely ceases. These ideas are therefore erroneous, and re-inoculation need never be attempted. We employ the balsams, together with other means spoken of; but not with any intention of relieving the ophthalmia, for when the affection results from ophthalmia contracted from another individual, we never make use of balsams. In attempting to cure the utheritis, we wish to remove one of the sources of the disease, and consequently diminish the chances of relapses."* A distinct

* Gazette des Hôpitaux, 1848.

species of *iritis*, as the result of gonorrhœa, is described by some modern writers ; but upon examination into the history of those cases, we will generally find that the subjects of it have been of a gouty or a rheumatic diathesis ; and that the remedies relied upon in this latter class of affections will be found most appropriate, in conjunction with local depletion, in subduing the inflammation of the iris. It is essential, however, that we should bear in mind that in this, as well as in the former species of disease, adhesions are very likely to be set up between the iris. The external application of belladonna, should therefore, never be omitted.

Ophthalmia neonatorum — This form of conjunctivitis is produced during the process of parturition, by the inoculation of the conjunctiva of the infant with leucorrhœal or gonorrhœal matter. *Ophthalmia neonatorum* appears in its most intractable form when consequent upon the application of the latter fluid. If neglected, purulent infiltration of the cornea will ensue ; its texture will be destroyed by the effusion of pus between its layers ; and sloughing, followed by protusion of the humours through the iris, with, in many instances, the loss of the lens, will be added. I do not remember a case in which, by strict attention to cleanliness, frequent ablution, and the use of a ten grained solution of nitrate of silver, injected by means of a syringe over the surface of the con-

conjunctiva, recovery did not quickly take place ; the infant usually opening the eyes after the third or fourth day. My friend Mr. Wilde has observed, and my own experience tends to corroborate the truth of the remark, that the conjunctiva of the upper lid is frequently the seat of extensive ulceration, which can be seen only by forcibly everting the lid. The cure may be much expedited by directing the caustic solution principally to its inner surface.

CHAPTER VI.

GONORRHOEA IN THE FEMALE.

HALF a century has now elapsed since Recamier introduced to the notice of the profession an instrument, through the agency of which diseases affecting the genital organs of the female might with facility be recognised ; yet notwithstanding the favourable testimony of those who, since his time, have made choice of the speculum in vaginal examinations, little has been elicited in this country, till a very recent period, by its employment. True, it has had its warm supporters among our continental brethren ; and a field of uterine pathology has through them been unfolded to our view, which but for its aid might have ever remained a subject of idle speculation ; and those hidden affections might, even at the present day, have been ranked amongst the *opprobria medicinae*. This borrowed information, the result of the labours of others, remained till the last few years untested by British surgeons ; who had neither the inclination nor the opportunity of investigating

for themselves. But that, in avoiding one extreme, we are too prone to fall into the opposite, will be apparent to those who, within the last two years, have been watching the proceedings of medical societies, and have perused the multitudinous papers which have been issued from the periodic press, for and against the employment of this instrument. The use and abuse of the speculum is still a subject upon which much might be written ; but in dealing with it, cool judgment and ample experience, apart from all feelings of personality, should be brought to the task. Were I to offer an opinion on this much disputed question, I would be disposed to say that its employment has been too indiscriminately recommended, and its enthusiastic advocates may yet have it laid to their charge, that they were the means of bringing a good and valuable diagnostic appliance into disrepute. These remarks have more especial reference to its employment in unmarried females ; cases where, if called into requisition at all, it should be as a *dernier resort* after ordinary remedies had been found inoperative. Its selection, however, in the disease in which we are about to treat, cannot, for reasons which will hereafter appear, be too strongly recommended.

Discharges in the female may be classified into *vaginal*, *urethral*, *utero-vaginal*, and *uterine*. 1st, In the *vaginal* form of the affection, the vulva may alone participate in the disease. This species is analogous to the external or preputial gonorrhœa

presented in the male. It principally engages, according to M. Moulinier, the vulvar glands, and is preceded by an intolerable sense of itching, succeeded by painful distension and considerable tumefaction of the parts. The discharge, at first but light and transparent, in a few days becomes thick and purulent; infiltration into the loose cellular membrane supervenes, giving rise to a large amount of œdema. The nymphæ participate in the enlargement, and are protruded between the external labiæ; and, from their constricted position, assume a semi-transparent and shining appearance. The bladder is sympathetically involved, occasioning a frequent desire to pass water, which exasperates in no small degree the patient's misery. Much local suffering is now complained of; locomotion is altogether interfered with, and a high degree of irritative fever is present, which is denoted by the rapidity of the pulse. If the disease be neglected, abscesses not unfrequently form in the loose cellular tissue, and may, if overlooked, make their way towards the rectum, and thus lay the foundation of recto-vaginal fistula. The foregoing is the train of symptoms observable when the affection is limited to the vulva; but it is seldom confined for any length of time to these external parts, as it most usually happens that, upon the subsidence of the more acute inflammatory action, the muco-purulent secretion is found, on examination with the speculum, to extend to a

considerable depth into the vagina ; sometimes occupying its entire surface, at other times restricted to the two inferior thirds. When the discharge is removed, which is best effected by means of a portion of sponge, or dossil of lint attached to a stick, the mucous membrane presents a bright red hue, varying in different parts, according to the particular attendant degree of inflammation. Abrasions of the surface are occasionally discernible, occurring sometimes in isolated patches, and sometimes in one continuous superficial breach. The patient is now free from pain, the discharge is profuse and of a yellowish colour, and the disease shows a strong tendency to degenerate into a chronic condition.

The *plan of treatment* which I have found most beneficial, is very similar to that which is indicated in preputial gonorrhœa, attended with phymosis. Rest in the recumbent posture should be strictly enjoined ; together with soothing applications, consisting in the first instance of warm fomentations to the affected part ; the administration of saline purgatives, in conjunction with nauseating doses of tartarized antimony, repeated every second or third hour ; and the use of a tampon of lint, with a view to keep the labiæ apart. Demulcent drinks, as barley water or flax-seed tea, are useful adjuvants where vesical irritability is present. I have never found it necessary to resort to the abstraction of blood, either locally or generally ; the

foregoing line of practice never failing to fulfil all the indications for which depletion might be prescribed. When the intense local inflammation has been subdued, cold evaporating lotions will be found most useful in reducing the tumefaction which usually prevails.

Should the vaginal mucous membrane become the seat of disease, either wholly or partially, the best local application which can be adopted is the solid nitrate of silver; which may be rubbed on its surface, through the blades of a speculum, two or three times a week. The immediate effect of this application will be to increase the discharge; but it will, after a few repetitions, either diminish it considerably or arrest it altogether. I have likewise been in the habit of applying to the same diseased structures, and with like beneficial results, the acid nitrate of mercury. This caustic I have found to succeed where the nitrate of silver had failed in effecting a cure. When the patient cannot conveniently submit to this, a strong solution of the nitrate of silver (a drachm to the ounce) may be injected by means of a glass syringe, or vulcanized indian-rubber bag, into the vagina; the labiæ, in the interval, being kept asunder by a plug of dry lint. Saturated solutions of alum have been found serviceable in the more chronic varieties. I may here, in passing, remark that in many cases of inveterate amenorrhœa, which had resisted every form of constitutional treatment, the

direct application of caustics to the cervix uteri was followed by a re-establishment of the healthy uterine secretion, at first scanty, but after a short time normal, both in quality and quantity. A species of vaginitis is described by Dr. Deville,* which he terms granular or papular. This, he says, occurs in nineteen out of every twenty cases in pregnant females. I have, however, not unfrequently met with it in the unimpregnated state likewise. Enlargement of the inguinal glands is commonly encountered during the progress of this affection, but suppuration rarely supervenes.

Chronic enlargement of the nymphæ, attended with much inconvenience to the female, may result as a sequence of this affection. This, however, is generally the result of repeated attacks of infection, and inattention to cleanliness. Abscesses, when detected, should be opened without delay, in order to obviate the unpleasant consequence before alluded to. Purulent deposits in this situation, when discharged, are characterized by a peculiarly fœtid and offensive odour. Bubo rarely presents as an accompaniment of uncomplicated vulvitis.

2. The *urethral* variety is seldom encountered as a distinct form; nevertheless, it is occasionally met with. Pain, scalding, and difficulty in micturition, (sometimes even amounting to retention of urine demanding the assistance of the catheter)

* Archives Generales, 1844.

are its distinguishing characters. These symptoms occur, for the most part, in a much more mitigated degree than when the male organ is implicated. If the urethra be examined with a view to the detection of the discharge, it is best effected by passing the finger into the vagina, and pressing the urethra from behind forward; when, should purulent matter be present, it will be at once observed issuing from the orifice of the urinary canal. Care should, however, be taken not to confound this with pus which may be adherent to the walls of the vagina. *Treatment.*—The free use of demulcents, and the application of fomentations should much irritation exist. This is the only variety of the disease over which the usual anti-gonorrhœal remedies would seem to exert any influence.

3. The *utero-vaginal* variety, in addition to the parts involved in the last species, implicates the exterior of the uterus, and frequently extends into the os, engaging the follicular glands in that situation. Upon examination, an erythematous redness pervades the entire cervix, generally accompanied with engorgement and slight induration. This is, in many cases, concealed from view by the intervention of a thin semi-transparent stratum of muco-purulent matter, with which the inflamed neck is slightly coated. On its removal, a granular state of the cervix is *occasionally* perceptible. This condition is almost invariably accom-

panied with a discharge from the os, of a very tenacious and almost purulent matter ; forming, in this respect, a marked difference between this secretion and that furnished by the vagina and exterior of the uterus. A string of this ropy material is generally found suspended from the os tinæ, which is disengaged with considerable difficulty. The presence of this plug, coupled with menstrual irregularity, will, I doubt not, in a great measure account for the almost universal sterility common to this class of females. The same disposition has been observed by M. M. Gendrin, Jobert, and Emery, in young married women labouring under leucorrhœa.

4. The lining membrane of the uterus may alone be the seat of disease, and constitute that form strictly termed *uterine*. This will be evinced by a discharge from the os, without any abnormal condition of the neck ; and is attended with a sense of weight in the pelvic region, with much uneasiness about the sacrum and lower portion of the spinal column. The os presents a patulous appearance ; and when the muco-purulent matter is wiped away, in a few moments it is reproduced, and is seen again trickling from the mouth of the womb. I have for the most part observed this variety in females of a strumous, or leuco-phlegmatic temperament, and it is best combated by a general line of tonic treatment. The preparations of steel, more particularly the compound iron mixture, will be found

most efficacious in restoring the uterus to its original healthy condition. As a substitute for injections into the cavity of the uterus, (which, from the untoward and dangerous consequences known to result upon their employment, it is desirable to avoid as much as possible) I am in the habit of introducing through the os a finely pointed pencil of nitrate of silver, and allowing it to remain in contact with the lining membrane of the uterus for a minute or two. This usually causes a momentary sensation of pain, but I have never known it productive of any ulterior ill-effects. In order to illustrate the trifling inconvenience produced by this remedial agent, I may mention that patients are constantly in the habit of walking distances to their homes almost immediately after the operation. This plan of treatment will likewise be found serviceable, where the follicular glands about the os are the seat of the disease.

The prevalence of gonorrhœa in Dublin during the last few years, offered unusual advantages to a person anxious to investigate the true nature of that disease; and in no institution were greater facilities afforded for such a line of study than in our Lock Hospital, containing 130 female patients, two-thirds of whom, at least, were at one time labouring under this affection. I was the more desirous of making myself perfectly familiar with the appearances of the vagina and uterus, as presented by the speculum; as no British hospital had

contributed any information to its pathology or treatment, and the only data for our guidance were supplied from continental institutions ; added to which, medical men of the highest repute, and most extensive midwifery practice, seemed unable to afford me, from their multiplied cases, the information I too often required.

Chancres of the cervix uteri are of such rare occurrence, as seldom to form the cause of vaginal discharges, or simulate gonorrhœa. Thus, in his treatise on venereal diseases, M. Ricord only details the history of one such case ; and in his table of inoculations, but twelve instances are recorded as coming under his notice in the venereal hospital, from 1831 to 1836. M. Gibert, for many years physician to the Lourcine, met with but three examples. M. Cullerier, during a long attendance on the Paris venereal hospital, observed but three. Mr. Bennet, for seven years connected with the Paris hospital, witnessed only two. MM. Emery and Duparcque, whose practice in uterine affections has been by no means inconsiderable, look upon this form of disease as extremely uncommon ; and I may add that, during a period of four years, which I had been attached to the Lock Hospital, I did not see a single example of the Hunterian chancre on the cervix uteri. But, although this specific form of ulceration is seldom encountered by those who enjoy the most extensive opportunities of investigation, yet there is a species of ulce-

ration met with and described by writers of the French school, as exceedingly common in females affected with vaginal discharges, and which they denominate "granular erosion." "This ulceration," says M. Gibert, "always rather superficial, generally has a rounded form, and is more or less plainly limited. It occupies sometimes the superior lips, sometimes the inferior, and sometimes both; and sometimes it even appears to penetrate into the cavity of the cervix uteri. Its surface is red and granular, and contrasts notably with the smooth and polished surface of the normal neck, and it bleeds easily. Generally speaking, a veil of viscous, semi-transparent mucous, which flows from the orifice of the neck of the uterus, covers the granular erosion." Out of five hundred cases which he examined, M. Gibert discovered the existence of this form of ulceration in one hundred and forty-four; some of which, however, were exempt from any vaginal discharge. M. Ricord states that this condition of the cervix is met with in nineteen out of twenty cases of gonorrhœal discharge; and that whenever these peculiar erosions are discovered, there can be no doubt of the gonorrhœal origin of the disease. He thus relies almost exclusively on this symptom in forming a differential diagnosis between this disease and leucorrhœa. Mr. Bennet, to whom I have already alluded, is of opinion that this lesion is not only exceedingly common in women labouring under

gonorrhœal discharges, but is also frequently to be found in females suffering from the secondary forms of syphilis. "In the spring and summer of 1843," he writes, "whilst in charge at St. Louis of a female skin ward of seventy-five beds, in which there was always a great number of syphilitical skin affections, I carefully examined with the speculum all that were so affected, in order to ascertain what was the state of the internal genital organs. I was led to adopt this course by finding, *on inquiry*, that several of those patients who presented no syphilitical disease of the external genital organs, except trifling leucorrhœa, were labouring under the symptoms I have enumerated as indicating slight inflammation and slight ulceration of the cervix uteri. On examining these latter patients, I found the cervix ulcerated and slightly indurated ; and it then occurred to me that others might be similarly affected, although they had not directed my attention to any symptoms of uterine disease. To my great surprise, I found that three out of four, perhaps more, also presented ulcerations of the cervix. Most of these patients were young women who had either never borne children, or had been confined several years previously, and were under treatment for syphilitical psoriasis, lichen, rupia, &c." And further on he adds, "The prevalence of ulceration in women labouring under the various forms of syphilis without vaginitis, is certainly singular ; but I am inclined to attri-

bute it to the abandoned life which they nearly all lead, or have led.”*

I have drawn up, in a statistical form, the details of one hundred and twelve cases of gonorrhœa,† and the appearances presented upon examination with the speculum; which, as they differ in some important particulars from those furnished by the majority of writers already cited, will not, I trust, be looked upon as altogether devoid of interest. In the course of these inspections, I ascertained that gonorrhœa in the female is not confined to the vagina, as was formerly supposed, but frequently extends to the uterus; generally involving the neck of that organ, and occasionally penetrating the cavity of the uterus itself; and thus, by a vitiated secretion of muco-purulent matter from the cervix uteri, or from the internal lining membrane of the uterus, the disease may be kept up for an indefinite period, whilst the vagina may be perfectly healthy. Such was the case in fourteen instances detailed, in which no disease of the vulva or nymphæ was apparent, while a copious discharge was the result of a diseased state of the lining membrane of the uterus.‡ In ninety-eight cases, the vagina presented a more or less inflamed ap-

* On Inflammation of the Uterus, 2nd edition, p. 326 and 329.

† These tables were exhibited at the Surgical Society.

‡ In the recent edition of his work on inflammation of the uterus, Dr. Bennet seems to doubt that the lining membrane of the uterus is ever involved in this affection. I have, however, satisfied myself, on post mortem examination, that such a condition does exist.

pearance. In thirty-eight, granular erosions were apparent on the cervix uteri, with attendant induration in six. In fifty-seven, the os and cervix exhibited an erythematous condition, generally accompanied with engorgement and slight induration. In six, there was hypertrophy of the anterior lip of the os uteri. In six, there was enlargement of the posterior lip. In thirteen, both lips were equally engaged. In ninety-seven, the cavity of the neck of the uterus participated in the disease. The duration of the affection previous to examination was as follows:—

CASES.	WEEKS.	CASES.	MONTHS.	CASES.	YEARS.
1	1	11	1	11	1
11	2	18	2	8	2
8	3	7	3	1	3
3	5	4	4	1	4
1	6	4	5	1	7
1	10	8	6	1	8
1	11	2	8		
		3	9		
		4	18		

In glancing at the results of those statistical returns, it will be observed that *granular erosions of the neck of the uterus* were only discernible in about one-third of the patients submitted to examination; a statement at variance with the experience

of continental writers, more especially with those of M. Ricord, who affirms that this peculiar lesion of the cervix uteri is to be found in nineteen out of twenty cases of gonorrhœa, thus enabling him to decide between the infectious and the more common forms of vaginal discharges to which females are liable. I think, however, from the absence of this symptom of disease in women, where, from the previous history of the case, no doubt can exist as to the venereal origin of the affection ; and, on the other hand, from its occasional presence in females labouring under leucorrhœa,* whose rank in life and virtuous habits place them beyond all suspicion of infection, we would by no means be justified, in this country at least, in pronouncing, either in a medico-legal point of view or otherwise, a positive opinion as to the nature of the disease from any evidence derived from this source. This I contend is a point of paramount importance: either the disease assumes a different character, and produces different local effects on the continent ; or M. Ricord must have fallen into an error that, to the medical jurist, might have been productive of grave results, and have blighted for ever his professional reputation.

How such a statement could have remained unrefuted till now, I cannot for a moment conceive, except on the supposition of want of sufficient

* See a paper on Affections of the Uterus, by Dr. Every Kennedy, in the Dublin Quarterly Journal for February, 1847.

opportunity to decide the question ! What then, it will be asked, are the diagnostic symptoms of gonorrhœa, or how are they to be distinguished from leucorrhœal discharges ? To this I must candidly reply, that apart from the history of the case I have as yet discovered none. True, microscopic and chemical analysis have both been brought to bear upon the subject ; but although the former has taught us that the uterine secretion presents, under the microscope, a different appearance from that of the vaginal ; and the latter has demonstrated that their reactions are dissimilar, the uterine partaking of an alkaline, while the vaginal discharge continues acid ; no practical value, in a diagnostic point of view, can be attached to those researches. Nor will urethral irritation enable us to clear up the difficulty ; every day's experience affording us examples of the presence of this symptom in leucorrhœal, and its absence in many of the forms of gonorrhœal affection. Again, I find my experience conflicts with that of Dr. Bennet and others, who state that they have discovered ulcerations of the cervix and even of the internal surface of the uterus, as a frequent attendant in syphilitic females ; the common occurrence of which they ascribe to the abandoned life this class of patients usually lead. That this condition obtains in the more virtuous description of patients I cannot for a moment doubt, but that *prostitutes* enjoy a peculiar exemption from this formidable lesion I am

perfectly satisfied. I have looked for it over and over again, both in individuals subject to discharges, and likewise in those affected with the secondary and tertiary forms of syphilis; *and, with the exception of two instances, I most decidedly have never encountered ulcerations, properly so called, either of the exterior or interior of the uterus.* Indeed, I am at a loss to reconcile the mildness of the symptoms, in the more chronic forms of the complaint, with even the *possibility* of ulceration; as we find that, after the subsidence of inflammatory action, not the slightest uneasiness is in the majority of cases complained of. "Like other portions of the mucous membrane of the sexual organs," writes M. Ricord, "the internal surface of the womb is frequently the seat of *ulcerations*, which the means hitherto pointed out cannot cure. We must here, as in the ulcerations of other parts, modify the surfaces in a more powerful manner; but the greatest precautions are necessary in cauterizing the interior of so delicate an organ, the reaction of which would be so powerful; for while the most powerful caustics applied to the orifice of the cervix generally produce no pain, fluids scarce possessing any caustic properties, being introduced into the cavity of the uterus, may cause the most serious consequences.*"

This peculiar form of disease, if ever it does

* On Venereal Diseases, p. 327.

occur in gonorrhœa, must be extremely rare ; else how could we account for the persistence of the complaint for a series of years, without producing that disorganization which we know is consequent upon ulceration when confined to other important tissues—the bladder, for example ; and which rarely fails in producing well-marked symptoms of an alarming character on the constitution generally, and not unfrequently perils the life of the sufferer. Surely, pain would be a prominent symptom were an organ of such importance as the uterus engaged in ulceration, and yet such an effect is rarely complained of, even when the disease has gone on for years. We might likewise expect that an occasional loss of blood would result on such disorganization ; but I do not remember having ever met with a single instance where such a symptom was present. It must therefore, I think, be evident to any unprejudiced mind, that the affection which I have described, as constituting that variety which I have termed uterine gonorrhœa, is different from that adverted to by M. Ricord in the passage just cited ; and consists not in ulceration, as I had more than once an opportunity of witnessing on post mortem examination, but in a chronic inflammation of the lining membrane of the uterus.

M. Ricord, however, does allude to the affection of which I have spoken, in a lecture delivered in the summer of 1847, where he states “ blennorrhagia may reach the uterus, and even run along

the Fallopian tubes to the ovary." In these few words, I take it, are contained, though not fully expressed, M. Ricord's true explanation of the pathology of that form of the disease. As he now makes no allusion to that ulceration of the interior of the womb, which on a former occasion he laid down as giving rise to blennorrhagia uteri, I think we may conclude that he is describing inflammation ; upon which this discharge is consequent, and which I have endeavoured to shew is the true condition of the parts under such circumstances ; and not ulceration, in which, I believe the disease rarely or never terminates.

Upon a review of the table set forth in the preceding pages, the duration of the disease may appear to some unusually protracted, extending in one instance over a period of eight years. It must, however, be borne in mind that the individuals alluded to were, for the most part, from their dissolute habits, continually the subjects of renewed infection, their sole subsistence being derived from a constant life of prostitution. But such was not the case with all. Some there were who determined to abandon a life of misery and profligacy, but against whom, destined to suffer "the orphanage that springs not from the grave," were closed for ever the doors of the parental home, from whence they had been allured by the snares of their heartless seducer, and who were compelled to take refuge within the walls of one of those quiet

retreats which afford an asylum to the unprotected. In some of these, after apparent cure, relapses brought on by bodily exertion, as washing, &c. were by no more unfrequent. This form of disease, the consecutive gonorrhœa of Hecker, appeared to be the result of a general relaxation of constitution, in which a tonic line of treatment was obviously indicated. In these latter cases, the interior of the uterus was always affected.* On speculum examination, the os uteri was invariably found open and patulous, giving exit to a vitiated secretion, which upon being removed was quickly reproduced.

Having, in speaking of the treatment best adapted to uterine gonorrhœa, alluded to the employment of injections into the cavity of the womb, I may be expected, before concluding these remarks, to make some observations on that particular line of practice. I have not, I confess, ever resorted to them; nor do I, from the experience of others, look upon their adoption as a justifiable proceeding. I shall therefore transcribe a passage from M. Ricord's work, bearing upon this particular part of the subject, and from which the reader can draw his own deductions: "Wearied," he says, "with the pro-

* Attached to the Lock Hospital is an asylum for a limited number of females, who when convalescent frequently avail themselves of the advantages this institution offers; and in immediate connexion with it, but on a larger scale, is another of a similar nature. Both these penitentiaries have been established by the indefatigable and philanthropic exertions of P. Æ. Singer, Esq., one of the governors of the hospital.

tracted continuance of certain uterine discharges, I made some attempt to cure them. I first used an injection of one part of nitrate of mercury and eight of water. Some patients had very violent hysterical attacks; one of them had a cerebral congestion, which caused a momentary apprehension of apoplexy. These symptoms, which all arose a few minutes after the injections, yielded very rapidly to antispasmodics; and in the case with cerebral congestion, on a quantity of blood being taken from the arm. Although the affections submitted to this treatment were either cured or partially so, I was obliged to reduce the doses to avoid the serious consequences. I subsequently obtained some cures, with one part of nitrate of mercury to twelve of water, without producing the symptoms before mentioned; but yet the action of these injections was not always unattended with pain, or some nervous reaction of an hysterical character. I then substituted six grains of nitrate of silver to the ounce of water, and found that in some instances a chronic purulent uterine discharge was cured after two or three injections.”*

* On Venereal Diseases, p. 327.

CHAPTER VII.

DISEASES WHICH SUCCEEDED TO GONORRHŒA IN THE
FEMALE.

Inflammation of the Ovaries.—Till a very recent period, the existence of ovaritis as a sequence of gonorrhœa was not noticed by any writer. I feel, however, convinced that this complication is not so rare as, from the silence of authors, we might be led to infer. Patients labouring under uterine gonorrhœa are occasionally suddenly attacked with pain in the iliac region, most usually the left, of a severe and lancinating nature. Tenderness on pressure over the seat of the ovary of the affected side is complained of, and a considerable degree of distension presents, sometimes circumscribed, but often generally diffused over the entire surface of the abdomen. This affection is likely to be confounded with hysteria, as many of the symptoms, which are usually attendant on the latter, are present here also. Ovaritis bears a close analogy to epididymitis in the male, but the symptoms attendant upon it are, as far as my observation extends, of a much milder and more transient description.

The treatment will consist in the application of leeches over the affected side, followed by warm

fomentations. Antispasmodics, administered internally, seldom fail, in conjunction with topical applications, to afford the necessary relief. I have never seen the disease from this cause terminate in abscess ; although upon post mortem examination the ovary has been found enlarged to double its natural size, and this in many cases where the affection during life escaped the notice of the practitioner.

Vegetations.—Fungi of a papiliform appearance are frequently met with as the result of the irritating secretion of gonorrhœa : females who are inattentive to cleanliness, and at the same time the subjects of vaginal discharges, are most liable to these formations. That these excrescences are purely local in their nature, and not the product of constitutional taint, will appear evident from the fact, that they are occasionally met with in otherwise healthy individuals, where the natural secretions are too abundant, and where ablution is disregarded ; added to which, inoculation has failed in propagating them. The situations which they select are usually where the skin and mucous membrane come into contact ; sometimes a large cluster occupies the orifice of the urethra ; but most commonly they collect on either side of the posterior part of the vagina, around the anus, which they completely encircle, and between the folds of the nates ; giving a raspberry appearance to the whole extent occupied by the disease. Their

colour varies from a bright crimson to a scarlet hue ; their consistence is usually soft, and sometimes gelatinous ; and they bleed on the slightest touch. Occasionally they are of a paler tint, in which case they are somewhat more resistive ; their surface is moist, and from it is secreted a matter possessing a peculiar odour. When removed, they are extremely liable to regeneration. These fungi are by some, owing to their form and appearance, supposed to depend upon an hyperthrophy of the papillary structure of the skin.

The treatment, with a view to the destruction of these growths, consists either in excision, or caustic, or a combination of both. When the former is decided upon, it is best accomplished with a pair of curved scissors, the flat surfaces of which should be laid as closely to the roots as possible. The operation, when anæsthetia has not been previously induced, is intensely painful, and is for the most part attended with a considerable amount of superficial hæmorrhage, which adds much to the embarrassment of the operator. It seldom happens, from the extent of diseased surface, that all the growths can be removed in one stroke of the cutting instrument ; several efforts are usually demanded of the operator, previous to a satisfactory conclusion. Surgeons sometimes content themselves with mere excision, and perfect their manipulations by the application of cold evaporating lotions. Experience, however, has proved that such an operation,

although it entails much pain upon the patient, is productive of no permanent benefit. In a few weeks the growths which were so carefully removed will be replaced by others in increased luxuriance. In order, therefore, to prevent their recurrence, and excite a healthy action in the parts from which they sprung, it will be requisite to brush the denuded surface with a stick of solid nitrate of silver, or some other caustic equally powerful. This may be followed up by the application of a saturated solution of alum, which will assist in producing a healthy tone in the capillaries. The frequent employment of escharotics will in some cases be sufficient to effect their removal, without having recourse to the knife. For this purpose I have found a solution of the bichloride of mercury, in the proportions of two grains to the ounce of water, the strength of which may be gradually increased according as circumstances may demand, the best local application. My friend and successor in the Lock Hospital, Mr. Emerson, informs me that in his practice a solution of chloride of zinc, in the proportion of half an ounce to eight ounces of water, has been attended with marked beneficial results.*

* The following is a communication which Mr. Emerson has kindly addressed to me :—

“Westmoreland Lock Hospital,
June 30th, 1852.

“My dear sir,

I would wish to impress upon you the high value I attach to Sir William Burnett's solution of the chloride of zinc, in all cases of

Some writers, among whom may be mentioned the late Dr. Wallace, regard these excrescences as partaking of a syphilitic origin; and consequently fearlessly administer mercury, with the view of ridding the constitution of the virus to which they ascribe their existence. I have tested the efficacy of this plan of treatment in the Lock Hospital, and am prepared to say that its adoption is not only based on unscientific principles, but that its exhibition is worse than useless. The supervention of ptyalism has no doubt checked the excrescences, during the time the patient was under the influence of mercurial action, but no ulterior benefit was observable after the effects of the mineral had worn away. The after or preventive treatment in these cases, is decidedly that upon which most stress should be placed. This will consist in rigid attention to cleanliness, and in the prevention of the accumulation of any of the uterine or vaginal secretions, by means of constant ablution. From the neglect of these pre-

vegetations and unhealthy growths, the result of inattention to cleanliness, and the accumulation of irritating vaginal secretions. Indeed, such is my opinion of its utility in those cases, that I believe it cannot be dispensed with. I consider the solution the most effectual, and in some instances the only application, (the knife excepted) that can be relied upon with certainty for the cure of the disease. The solution, dilute or otherwise, is painful when applied, but the cases in which its employment is demanded cannot be cured with rose water.

“ I am, dear sir,

“ Very sincerely yours,

“ R. H. EMERSON.”

cautions, the fungi will show a disposition to form again, and the patient will be obliged to submit to the inconvenience and confinement resulting upon a fresh line of treatment.

Warts.—These excrescences differ from those already described principally in appearance and vascularity. Their colour is pale, resembling the parts from which they spring ; they are insensible to the touch, and do not generally show a disposition to bleed, except upon their removal with a cutting instrument. A puriform discharge, possessing an offensive odour, is secreted from their surface ; they occupy similar situations, on the muco-cutaneous tissues, with the more vascular fungi, and are produced by the same local causes, independent of constitutional contamination. By some they are said to be contagious ; in confirmation of which opinion two cases are generally cited, as reported by Sir Astley Cooper ; in which the affection was communicated, in one instance, from a husband to his wife ; and in another by a medical practitioner, from a wound inflicted on his finger, while in the act of removing a number of these growths. Of this latter peculiarity, however, I have never been fully able to satisfy myself. They are usually more manageable than the preceding variety, are amenable to nearly a similar treatment, and in many cases can be eradicated by escharotics, such as those alluded to, without having recourse to the knife. The application of strong acetic acid

would seem in some instances to exert a specific influence over them.* Particular attention to cleanliness should here likewise be strictly observed.

Condylomata.—From the frequency with which these mucous tubercles occur in females labouring under gonorrhœa, although not invariably a sequela of the disease, I am induced to treat of them in this place. I have, however, occasionally met with these growths where no vaginal discharge was present, as resulting upon an imperfectly healed primary ulcer ; but my experience would lead me to affirm that this latter peculiarity of origin is the exception and not the rule. Coetaneously with this affection, a superficial excoriation or ulceration of the mucous membrane of the mouth and fauces has been observed, an appearance which has led some authors to view the disease as a form of constitutional syphilis. This condition, which I have more than once perceived, I regard as merely a coincidence and not in any way connected with a venereal taint. I do not believe that condylomata ever present as a primary symptom, nor that they select any peculiar form of sore upon which to engraft themselves, nor are they the result of any particular description of primary ulcer. I have frequently endeavoured to reproduce them by inoculation ; but in every attempt which I made

* Mr. Lee, in his valuable edition of Sir Astley Cooper's Lectures ; states, that every description of wart may be removed with safety by means of an ointment composed of Ung. Hyd. Nit. ʒj. Pulv. Arsenical. gr.j.

with this view, I was unsuccessful. From this and other reasons, I feel assured that, like the growths previously described, they are altogether local in their nature, and are most commonly originated by the vitiated secretion of the parts in the neighbourhood of which they are situated.* The localities which they occupy are principally the verge of the anus, the interspace between the greater labia, and the margin of the abdomen ; and they are not unfrequently imbedded in the fold of the thigh, the combined influence of heat, together with undue and unhealthy moisture favouring their production. Their surface is flat, rounded, and elevated above the surrounding skin ; their colour is of a dull

* Contrary to the doctrine propounded in the text, the result of a lengthened personal experience, and strengthened by repeated experiments, Dr. Waller of Prague, in a recent number of the *Provincial, Medical, and Surgical Journal*, states that he has succeeded in reproducing mucous tubercles, or condylomata, by inoculation, in individuals who had never been the subjects of gonorrhœa or chancre, but in whom this affection appeared as a primary symptom. From these experiments he concludes, in opposition to the received opinions of the present day, that secondary symptoms are inoculable, and that these indications of constitutional infection may exhibit, without having been preceded by any form of primary lesion. Dr. Waller is, I think, entitled to the thanks of the profession for the candid manner in which he has avowed his opinion ; but a little reflection will, I should hope, suffice to prove to him that those deductions, generalized from the two cases detailed by him, are by no means sufficient to overthrow a doctrine of such practical importance ; and one, moreover, which has stood the test of the most extensive hospital experience, under the watchful eye of surgeons of the most unblemished reputation ; many of whom, too, laboured but in vain to prove that position for which Dr. Waller now contends. It must likewise be remembered that the previous history of those cases, although faithfully reported as narrated by the patients, may not have been detailed with that degree of veracity which would lead us to dissent from well established principles.

white ; they are callous, indolent, and insensible to pain, and seem to depend upon an hypertrophied state of the cuticle. They generally present in clusters, but sometimes are solitary and isolated ; and their surface is bathed in an offensive exudation, which, from its irritating qualities, induces in the more chronic varieties an inflamed and excoriated appearance. When this result ensues, they lose their original insensible condition, and become extremely painful and distressing. The treatment does not differ in any material respect from that prescribed for the removal of the other forms of excrescences alluded to ; a solution of bi-chloride of mercury, or chloride of zinc in the proportions previously recommended, will be found most advantageous. When other escharotics fail, the application of creosote, and the subsequent sprinkling of the diseased surface with calomel, is a mode of treatment strongly advised. It will sometimes happen that, notwithstanding all our efforts, these growths will resist every form of caustic ; in which case, the knife must be resorted to for their removal. I have seldom observed, even in the most obstinate varieties, any advantage accrue from the internal administration of mercury. As in the other description of vegetations, engendered by local irritation and fostered by depraved stimulating secretions, constant ablution must be rigidly exacted ; in the absence of which, a recurrence of the disease may be fairly apprehended. The differ-

ent variety of growths, enumerated in the foregoing pages as occurring on the female organs of generation, are prone, from the same causes, to seize upon the male. Females, however, are more particularly liable to be the subjects of them ; and when they exhibit themselves in this class of patients, they present in much greater abundance than in the male. In both sexes, the same line of treatment is applicable.

Enlargement of the External Labiæ.—In females who have exposed themselves to long continued sources of infection, one or both of the external labiæ may become the seat of chronic enlargement. When but one side is involved, I have most usually observed the hypertrophy engage the left labia, the dimensions of which are frequently altered so much as materially to interfere with the powers of locomotion. Beyond, however, the mechanical inconvenience resulting upon an unwieldy growth, no further annoyance is complained of. The causes which give rise to this affection depend for the most part on the accumulation of the irritating secretions of gonorrhœa ; and I do not remember having ever met with a case of chronic labial enlargement where a copious vaginal discharge was not coincident. Upon examination, the tumour presents a lobulated appearance, with intervening fissures, in colour resembling the natural covering of the labia. When handled, it is firm and insensible to pain, and from its size, causes a considera-

ble projection between the thighs. When it attains a large dimension, the friction occasioned by the labia of the opposite side, added to the acrimonious nature of the secretions, give rise to an ulcerated condition of its internal surface. When this latter complication ensues, the secretion is altered from a puriform to a bloody ichorous discharge, of a highly offensive odour. The slightest motion is now attended with distressing sensations. Micturition is performed with difficulty, owing to the scalding it occasions when coming into contact with the ulcerated surface ; the anticipation of which leads the patient to retain the contents of the bladder beyond the accustomed limits prescribed by nature.

Treatment.—If the disease be seen before it attains any considerable magnitude, the repeated application of cold evaporating lotions, may be sufficient to discuss the tumour. This plan of treatment rarely, however, succeeds after any unusual abnormal size has been attained. When the hypertrophy does not exist beyond a medium degree, the solution of the bi-chloride of mercury, or chloride of zinc, will generally have the desired effect ; but when the enlargement has increased to such an extent as to render locomotion inconvenient, more especially where it has advanced to that stage where ulceration of the interior surface ensues, the knife alone can be relied upon in accomplishing an expeditious and permanent cure. The operation, although apparently trifling, is

nevertheless attended with considerable pain and nervous depression ; on which account, and in order to counteract the struggles of the patient, I am in the habit of previously inducing anasthætia, which likewise obviates the necessity of preliminary arrangements in securing the hands and feet, as in the operation for lithotomy ; and which proceeding is the harbinger of no very pleasurable sensations to the patient. During the removal of the diseased labia, which is effected in the ordinary manner, the surgeon must be prepared for a considerable amount of hæmorrhage ; the ligature should therefore be in requisition, to secure two or three of the larger branches, which occasionally bleed most profusely. The veins also of the part form a copious source of hæmorrhage subsequent to the operation ; but this can be arrested by means of pressure and cold applications, which constitute the after treatment. I have more than once observed rapid depression of the vital powers, sometimes succeeded by syncope, ensue from loss of blood occasioned by a slight delay on the part of the operator or assistant in securing the vessels, and a blanched and exsanguineous aspect was apparent in the patient for some weeks afterwards, a condition which might not be expected as the result of so apparently trifling an operation. After excision, strict attention should be paid to ablution, and a dossil of lint saturated with some form of evaporating lotion should be placed in the vagina, with a

view to prevent the gonorrhœal matter from adhering to the denuded surface; as this might be productive of foul unmanageable ulcers. If, upon removal, an incision be made into the substance of these tumors, they will be found to possess an almost fibro-cartilaginous degree of firmness; and no disposition to the formation of cysts, or abscesses, will be discovered in any portion of them. I cannot find any reference made to this affection of the labia, in the works of any author which I have consulted, with the exception of M. Parent Duchatelet, who seems to make a passing allusion to it.*

* De la Prostitution dans la Ville de Paris, tome 1, p. 253.

SECTION II.

CHAPTER VIII.

PRIMARY ULCERS, THEIR DIAGNOSIS AND TREATMENT,
WITH THEIR USUAL CONSECUTIVE RESULTS.

To every practitioner, whose field of investigation leads him beyond that which is generally allotted to the surgeon engaged in mere private attendances, and who enjoys the indisputable advantages and paramount privileges which the wards of an hospital present ; whether as considered in relation to the opportunities afforded of studying the forms or varieties of any particular class of diseases, or testing the efficacy of those remedial agents employed in their cure ; it must have occurred to him how insufficient are the data, and consequently how fallacious are the deductions drawn from a few isolated cases, which on a more extensive scale might probably form but exceptions to the general rule. It is thus that the hospital surgeon is enabled patiently and perseveringly to follow up any suggestions that may tend to the alleviation

of human suffering ; and whilst he is ever ready to appreciate the labours of those who, even in the most remote degree, may have contributed to the improvement of medical science, he is alike prepared to discard the opinions and reject those therapeutic means and appliances which the result of experiment fails to confirm.

The grouping together of symptoms, with a view to the classification of disease, the minute and accurate study of the local and constitutional indications present or likely to arise in the course of treatment ; whether these abnormal alterations are the natural products of disease, or have assumed their peculiar features from the effects of constitutional, or (what is more likely to occur in syphilitic ulcers,) from topical interference ; are points which can only be satisfactorily and fairly determined by reference to the facts, which fall under the observation of those who are conversant with the daily extensive and practical returns deducible from the source referred to.

In a former chapter I endeavoured to show that, when uninterfered with by local applications, venereal ulcers assume certain specific characters ; that from these appearances may, to a great extent, be prognosticated what class of constitutional affections are most likely to supervene ; or rather, what will be the leading characteristics of the secondary or tertiary symptoms, should they succeed to the primary sore. I likewise stated that experience

had led me to believe, that syphilitic ulcers are amenable to certain fixed, though not immutable, laws; that the subsequent cutaneous eruption, together with certain abnormal alterations in the natural appearance of the throat and other tissues, result upon peculiar forms of primary sores; and that these general indications (although, as in the case of eruptions, they may partake more or less of a mixed character,) are sufficiently preserved in their distinctive traits, to enable us to recognize upon what species of original infection they are consequent. My faith in this doctrine has been strengthened by the results of inoculation; and I have previously demonstrated, that matter taken from primary sores of a recognized class will produce ulcers of a similar description. The late Mr. Carmichael, having been many years ago convinced that the different varieties of constitutional infection were explicable only on the supposition of a plurality of poisons, proceeded to the classification of both primary and secondary symptoms; a labour which, if it possessed no other advantage than that of rescuing those diseases from the confusion and mystery in which they were up to that period involved, was in itself worthy of a mind so original and exalted. It has, however, been conceded by those who strenuously opposed what they conceived an equivocal theory, that the line of treatment which necessarily followed upon a systematic arrangement, was productive of incalcula-

ble advantages, and deprived these affections of that empirical *opprobrium* which for so long a time had attached to them. Other subsequent writers have attempted a variety of sub-divisions, which, instead of facilitating the study of these diseases, has added considerably to their complexity, and seem to me to be destitute of any practical value. I shall therefore, in the following pages, adopt the general classification of Mr. Carmichael, differing from him only in some points of detail, that will not involve to any material extent a discrepancy of opinion. At the same time, I feel assured that two or three other forms of primary ulcers might be added to the list ; but the practical utility of such an augmentation would, in my mind, be insufficient to overbalance the confusion which is inevitable to a departure from established rules. I shall describe in order four descriptions of primary ulcers, and under each head I shall give their usual consecutive results ; and any symptoms which I am unable to rank under one or other of the primary sores shall afterwards be alluded to in a separate form.

CHAPTER IX.

FIRST CLASS.

The superficial primary ulcer.—From a period varying from three to seven days after suspicious sexual intercourse, symptoms of infection usually present themselves. Slight irritation and tenderness are experienced in the affected part, which are speedily followed by local inflammatory appearances. In the centre of the areola thus formed, a vesicle filled with a transparent fluid is observable. The contents of the vesicle soon change in colour ; instead of exhibiting to the eye a clear and pellucid aspect, they now present a clouded and turbid appearance ; the elevated and pointed summit of the vesicle loses its prominence, becomes flattened, and purulent matter is deposited within it. The pus thus generated eventually dries up, and in three or days a crust or scab is formed on the exterior of the former vesicle, which quickly separates, and exposes an ulcerated surface. If we now direct our attention with a view to a minute examination of the sore, we will find it to possess the following

properties characteristic of its nature. The centre is but slightly if at all excavated, and the ulcer is coated with a thin muco-purulent matter, the base and margins of which are destitute of any degree of induration ; forming in this respect a striking contrast to the true syphilitic ulcer hereafter described. Before proceeding to the treatment of this and other varieties of primary venereal ulcers, it will be necessary, for practical purposes, to bear in mind the two distinct stages in which these sores are found, the first constituting the ulcerative, and the second the reparative stage. Each of these conditions will demand a different or modified line of procedure.

Treatment.—Should we, which unfortunately seldom happens, be consulted at the very early period, before the disappearance of the vesicle or pustule, we should not hesitate in at once opening and discharging its contents, and having immediate recourse to the free application of caustic. This may either be effected by means of a finely pointed pencil of nitrate of silver, or, what is preferable, the acid nitrate of mercury. A simple ulcer will then result, which will in all probability be deprived, by this timely application, of its specific or contagious properties. But the most frequent period at which our assistance is sought is when the sore has arrived at the ulcerative stage, when the crust has fallen off, and when the true nature of the ulcer is apparent. Here, as in the former case, we must resort to the use of one or other of the escharotics

alluded to, our object being to reduce the ulcer to the condition of a simple sore, and to treat it as a local affection. It will be necessary to repeat the cauterization until a clean granulating surface comes into view, and to extend the action of the caustic beyond the mere sphere of the disease, into the surrounding apparently healthy tissues.

In proportion to the early period at which this treatment is adopted, will be the likelihood of neutralizing the poison, and thereby preventing constitutional infection. It has been laid down as a positive rule by M. Ricord, the accuracy of which is I believe now generally admitted, that if venereal ulcers are properly and judiciously cauterized before the fifth day, the patient runs no risk of secondary contamination from the absorption of the virus. When the reparative stage has arrived, active cauterization is not only unnecessary but decidedly mischievous. It is unnecessary, because by its aid secondary symptoms cannot now be prevented, the absorbents having had full time to convey the virus through the system. It is mischievous, because it serves to retard the restorative process which nature had set up, and interferes with the cicatrization of the ulcer. Weak solutions of nitrate of silver, or sulphate of copper, may at this stage be advantageously employed, as they tend by stimulating the sore to expedite the healing process. Greasy applications should in all cases be

studiously avoided. It has been urged as an objection to the local use of caustics, that from the irritation they occasion, bubo is most likely to supervene. I can, however, safely assert that after a very extensive employment of escharotics, these enlargements were but rarely encountered, and were certainly not more frequent than under any other form of treatment. While the patient is being subjected to the treatment already detailed, strict attention should be paid to the diet; the bowels should be kept moderately open by the administration of cooling purgatives; and indulgence in malt or spirituous liquors should be altogether interdicted.

A high degree of local inflammation, accompanied with phymosis, is not an unfrequent concomitant in this affection. When this condition exists, and when much fever is present, a general line of antiphlogistic treatment should be resorted to, and the caustic should be sparingly used until the subsidence of inflammatory symptoms. The topical abstraction of blood, from the disposition of leech-bites in this situation to degenerate into unmanageable ulcers, should always, if possible, be avoided. When, in addition to this complication, *the ulcer is situated beneath the prepuce*, a condition which will usually be detected by a distinct sensation of hardness, and a peculiar sensitiveness to the touch immediately over the seat of the sore, it will be advisable, should inflammation of the penis and

phymosis continue after the employment of the ordinary antiphlogistic appliances, to have recourse to one or other of the operations previously recommended for the relief of phymosis. This will be attended with the two-fold advantage of reducing the inflammation, which the irritation of the sore invariably keeps up, and exposing the true nature of the ulcer, which will form a guide to the subsequent treatment. After the completion of the operation, the surface of the sore must immediately be cauterized, in order to prevent inoculation of the newly incised margins. The species of primary ulcer, which is for the most part found in this situation, corresponds in its characters to that of which I am now treating ; but it will occasionally happen that the indurated sore will, upon exposure, exhibit itself. In this case, the patient must be prescribed for in accordance with certain rules, laid down in a subsequent chapter for the management of this peculiar form of primary infection.

This description of sore, in common with other varieties, is occasionally *seated on the frænum* ; and as a slow process of ulceration is likely to set in, which retards the healing disposition, and which usually terminates in the destruction of this membrane, its division by means of a bistoury will materially expedite the cure. Care should be taken, however, to have the incised surfaces instantly touched with caustic, in order to obviate inocula-

tion. The superficial primary ulcer is in this country by far the most usual description of sore with which the practitioner has to deal. The average time required for its cure, when uncomplicated with bubo, may be said to be three weeks ; with bubo, two months. The constitutional affections which are likely to succeed to the absorption of the virus from this peculiar form of ulcer are :—

1. *A papular eruption.*—At an ill-defined period, ranging from three to six weeks, the patient complains of a sensation of heaviness and lassitude, followed by rigor and nausea. The febrile symptoms are generally more intense in their character when they occur previous to the cicatrization of the primary sore. In some cases, where the accession of the eruption is protracted to a late period, or when a second or third crop has formed after an interval of remission, no constitutional disturbance is experienced prior to the appearance of the eruption. If we now examine the forehead or breast of the patient, we will discover small, solid, hard, deep-red elevations, which quickly engage the trunk and extremities. They are usually encircled by an inflammatory areola, and their apices evince a tendency to ulceration ; on the disappearance of which, small dry incrustations envelope their summits. These spots alternately fade and reappear, more particularly when uninterfered with by treatment ; and they eventually terminate in desquamation.

Treatment.—During the continuance of the febrile attack, which usually ushers in the eruption, the patient should be confined to bed, purgatives and antimonials should be administered, and the diet regulated according to the circumstances of the case. When the fever has subsided, the practitioner should at once have recourse to the use of the iodide of potassium, in five-grain doses, repeated three times a day. It has been by some recommended to administer the salt in scruple and half drachm doses ; but I feel assured from experience, that it is far more judicious to saturate, as it were, the system with the smaller doses, than to run the risk of disorganizing the stomach and digestive organs, by a remedy which cannot in this way be persevered in longer than a few days. The compound decoction, and other fluid preparations of sarsaparilla, have been most commonly chosen as the vehicle for the administration of this remedy ; but experience has taught me that no advantage is to be derived from the selection of these preparations, which in my mind exercise no control over the disease in any of its forms. I have for some years, therefore, discarded their use both in hospital and private practice, and prescribe the iodide simply in cinnamon water. My friend Mr. Emerson, while from five years extensive practice in the Lock Hospital, he speaks highly of the value of the iodide of potassium in the secondary forms of syphilis, states that he has likewise used, with marked beneficial

results, the nitrate of ammonia;* a salt, he observes, well known to the chemist, but not to the practising physician. He has now employed it for some time in the treatment of these affections, and has been led to form a high opinion of its efficacy. The occasional use of the tepid or vapour bath, more particularly when the eruption is on the wane, will materially assist in restoring the skin to its original healthy condition.

2. *Increased vascularity of throat.*—This affection is not unfrequently coetaneous with the eruption previously described; but as it is also met with as an uncomplicated sequela of the superficial primary ulcer, I thought it deserving of notice in a separate form. If we examine into the condition of the throat, we will find the inflammatory action diffused over the back of the pharynx, and engaging the tonsils, both of which are usually much swollen. The glands of the neck likewise, at a later period, most commonly participate in the enlargement. Much febrile excitement is present at the commencement of the attack, and the patient experiences considerable pain and difficulty in deglutition, in consequence of the inflamed and approximated state of the tonsils.

I have never known ulceration, either at the

* R. Ammoniaë nitratis, ℥ss.

Aquæ puræ, ℥vss.

Syrupi. aurant. ℥iv.

Misce; sumat cochlearia duo ampla ter in die.

back of the pharynx, or in the substance of the tonsils, result upon this affection. The constitutional treatment recommended in the eruptive form of the disease is likewise applicable here. Gargles composed of nitrate of potash, or sulphate of alum, will be found useful adjuvants in the course of treatment.

3. *Pains in the joints simulating rheumatism.*—This may occur as a mere isolated affection, or in combination with one or both of the preceding varieties. The pains are generally referred to the larger joints, as the shoulder, hip, knee, &c.; and if left to the unassisted powers of nature, effusion to a greater or less extent is likely to ensue. The uneasiness is complained of more particularly at night, and the rest of the patient is in consequence much broken and interrupted; his countenance assumes an anxious and fretful expression; his appetite fails, and his temper is capricious and irritable. Now, as these articular pains resemble so closely rheumatic affections of the joints; as they are, like them, more severe at night than in the day; it is often a point of extreme difficulty, apart from the history of the case, to form a correct or accurate diagnosis. I have, however, so frequently encountered this affection in individuals who had recently been the subjects of the superficial primary ulcer; and have, moreover, so often found it coexistent with a papular eruption, and that peculiar state of the throat already alluded to,

that I have no hesitation in ranking it as one of the ordinary sequelæ resulting upon that particular form of sore. It has, however, been stated by writers whose opinions are worthy of attention, that these special pains are never met with except as a consequence of the abuse of mercury, employed during the treatment of the primary ulcer. I have clearly and satisfactorily ascertained that, far from this observation holding good as a rule, the contrary is most frequently the case ; that the majority of patients thus affected have never been subjected to the action of that mineral, either internally or externally ; and I have, in many instances, carefully watched the progress of the case, which from a few days after infection has been under my own immediate care. There are diseases of the osseous system, to which I shall have occasion hereafter to advert, distinctly traceable to an ill-directed and mismanaged mercurial course ; but the experienced practitioner will at once be able to assign to them their real origin, and draw a line of demarcation between the genuine effects of the absorption of the syphilitic poison, and those produced by the ill-directed efforts of the surgeon.

Treatment.—The iodide of potassium would seem to possess almost a specific action over this affection ; and if persevered in steadily for a few days, with the occasional assistance of the tepid bath, the patient speedily obtains relief from his suffering,

and his rest and appetite are quickly restored. It will sometimes be requisite, at the onset of the attack, to have recourse to anodynes for the purpose of procuring rest. In these instances, I have found more benefit from the use of Dover's powder than any other preparation of opium. Should effusion take place into the synovial membranes, or bursæ of the joints, counter-irritation by means of blisters over the seat of the tumefaction, or the application of the tincture of iodine, may be resorted to with much advantage. Hitherto, it will be observed, I have studiously avoided recommending the use of mercury for the cure of either the primary sore of this class, or for the constitutional affections to which I have alluded ; and, in doing so, I would not have it supposed that I am prejudiced against its employment, without having given to it that fair and impartial trial to which every remedial agent is entitled ; more particularly when it is, even at the present day, regarded by many as a specific for every phase and variety of the disease. Biassed by early associations in favour of its adoption, I entered upon my duties as surgeon to the Lock Hospital ; but after no considerable lapse of time did I perceive that, in thus subjecting to the influence of this mineral the patients committed to my charge, I was not only employing an unnecessary remedy, but inflicting a cruelty upon those that came under my care. The cure of the primary sore was not much accelerated ; and I

had too often, at the termination of the course, to witness the melancholy *sequelæ* which presented in œdema of the limbs, general anasarca, or other affections more immediately dependant on the primary disease; but exasperated by the means employed originally in the hopes of a permanent cure. And when I also observed that four-fifths of those who died in the hospital fell victims to pulmonary phthisis, and that the greater part of these either used or abused mercury, I was determined to relinquish my former prepossessions in its favour, and give up its indiscriminate employment. In making these remarks, I would not be understood to apply them to all sores situated on the genitals, or to every form of secondary symptoms. They are for the most part referrible to the primary ulcer, characterized more by negative than positive symptoms, and to those constitutional affections of which I have already spoken.

I would not, however, altogether discard the use of mercury. Even in this species of superficial sore, there is a condition which occasionally, but rarely in healthy constitutions, obtains; where the ulcer, after having healed to a certain extent, remains stationary or indolent, and where topical applications seem inoperative in promoting its perfect cicatrization. Here the judicious employment of mercury will be attended with marked and decided advantages. But if, under the circumstances described, it be given with a view of

preventing the occurrence of constitutional symptoms, the practitioner will, I feel assured, find himself grievously disappointed. These symptoms will often present themselves under any form of treatment; and when they appear after the exhibition of mercury, they are usually of a much more severe and intractable character. Again, should the papular eruption persist for a longer period than usual, under the treatment formerly recommended; should fresh spots continue to replace those which had disappeared; and, lastly, should the desquamating stage be protracted beyond due limits, mercury will no doubt assist in expediting recovery.

4. *Iritis*.—This affection, when it results upon the absorption of the syphilitic poison, is almost universally met with in conjunction with the papular eruption, in one or other of its stages. It is characterized by a dimness of vision; a fading of the natural brilliancy in the appearance of the eye; increased external vascularity of the sclerotic, forming a red zone or boundary immediately around the margin of the cornea; an alteration of colour in the iris, owing to the effusion of lymph into its texture, small tubercles of which are deposited on its anterior marginal surface; and a fixed, contracted, and irregular condition of the pupil, which is usually drawn towards the internal angle of the eye. As the disease advances, the conjunctival vessels become distended and turgid,

and the whole organ is enveloped in one mass of inflammation. The lymph, at first sparingly deposited, is now thrown out abundantly, fills the pupil, and destroys its usual dark black appearance. In proportion as these changes take place, are the powers of vision impaired, till at length no objects are discernible.

Should this affection proceed uncontrolled, supuration and total disorganization of the organ will eventually ensue. During the prevalence of the foregoing symptoms, the patient complains of extreme intolerance of light, together with a considerable amount of pain in the globe of the eye and adjacent parts ; exacerbations of which are so severe at night, as to preclude the possibility of sleep.

Treatment.—As the different changes of which we have spoken are frequently effected in a very short space of time, active measures must at once be had recourse to. In strong plethoric individuals, an immediate impression must be produced on the system by the general abstraction of blood ; which, independent of antiphlogistic reasons, prepares the way for the action of constitutional remedies. This must be followed up by local depletion, by means of leeching or cupping the temples, repeated until inflammatory action is subdued. But our main reliance must be placed on the exhibition of mercury, which acts most energetically in controlling

inflammation, arresting the effusion of lymph, and producing its rapid absorption when deposited. For this purpose, a combination of calomel and opium is the safest and most efficacious remedy that can be resorted to. Pills, containing two grains of the former, and a quarter of a grain of the latter, may be prescribed every fourth or sixth hour, until gentle ptyalism supervenes; after which the dose may either be diminished, or the interval between its administration be prolonged, in order on the one hand to prevent excessive salivation, and on the other to keep up the action of the mineral until all vestige of the disease be removed. With a view to the dilatation of the pupil, and the breaking up of recent adhesions that may have been formed between the capsule of the crystalline lens and the margin of the pupil, the topical use of belladonna will be essential. The extract may be rubbed on the skin over and around the eye; or, what is more efficacious, a drop of the solution of atropia, recommended by Mr. Wilde, and introduced by him into this city some years since, may be placed upon the conjunctiva of the lower lid; this has the effect of dilating the pupil to more than its natural size, and retaining it in this state for four or five days. The advantages of this preparation are, that it is a more potent remedy in the breaking up of recent adhesions than the extract, more cleanly as an application, and exempts the surrounding skin from the

production of the eruption which so generally results upon the application of the more ordinary remedy. It is to a certain extent, however, contraindicated in cases where the inflammation has advanced to any considerable degree of intensity, accompanied with much lachrymation ; or where the effusion of lymph has been extensively deposited. In these latter instances, the extract is much more certain and decided in its effects. In connexion with the treatment of iritis, I may mention that ample opportunity has been afforded me of testing the value of a therapeutic agent, many years ago proposed for the cure of this form of secondary syphilis, by Mr. Hugh Carmichael. I need scarcely add, I allude to the use of turpentine, but regret to say that in no case was I successful in arresting the progress of the disease without having recourse to mercury ; and never having failed in accomplishing a cure with this mineral, I cannot speak of the beneficial effects of the terebinthinate treatment, where mercury is said to have been unsuccessful. From the salutary influence which mercury is known to exert over this specific form of inflammation, a strong argument is said to have been established in favour of its anti-syphilitic properties. It requires, however, to the unprejudiced mind, no force of reasoning to demonstrate that such is not the *rationale* of its action ; inflammatory diseases in general, including idiopathic, gouty, and rheumatic

iritis, being equally subservient to its duly appreciated powers. Having now completed the description and treatment of the superficial primary ulcer, and its usual constitutional effects, (illustrations of which are so frequently presented to the notice of the surgeon, as to render the details of cases superfluous,) I pass on to the consideration of the second class of primary sore, of which, with its ordinary consecutive sequelæ, I propose to treat.

CHAPTER X.

SECOND CLASS.

2. *Primary ulcer, distinguished by elevated margins, centre slightly excavated, and even without granulations.*—This species of sore is perhaps the rarest form of ulcer encountered as a primary affection. I have met with but three or four instances which might strictly be classed under this head. In its origin it is similar to that last described, but differs from it in not presenting its diagnostic characters, until the second or third week from the date of its advent. If we examine it at this period, we will find that its edges are raised above the surrounding surface ; that they are destitute of induration, and evince no disposition to assume a fungoid appearance ; that its centre is smooth, and on a plane a little inferior to the cutaneous margin that encircles it.

Treatment.—As in the preceding variety, the free application of the nitrate of silver, or the acid nitrate of mercury, should at once be resorted to ; after which, water dressing should be employed in

promoting the healing process. The more frequent use of escharotics is calculated to excite an irritative action in the part. Mercury, when given for the cure of this affection, is generally productive of injurious results ; instead of hastening the normal process of cicatrization, under its influence the edges have become undermined, and the healthy action of the sore has either been arrested altogether, or materially retarded.

The constitutional affections which usually succeed to this description of primary ulcer are,

1. *Increased vascularity, with a dry and granular appearance of throat.*—About five or six weeks subsequent to infection, the patient complains of a soreness and dryness in the throat, which is peculiarly distressing in the morning ; a sensation of roughness is experienced at the back of the pharynx, and he is constantly swallowing saliva, with a view to the moistening of the parts ; deglutition is performed with much difficulty, during the process of which he is frequently sipping some fluid which he manages to have within his reach. This affection is sometimes preceded by fever, but more usually a mere sense of lassitude and depression are its only precursors. Upon examination, the posterior part of the pharynx presents a dry and granulated aspect, occasionally accompanied by a superficial apthous ulceration. This latter symptom is observed to engage the mucous membrane only, and never involves the subjacent tissues.

Treatment.—The local application of nitrate of silver or the acid nitrate of mercury, conjoined with the internal administration of the iodide of potassium, seldom fails in effecting a cure. After one or two applications of the caustic, gargles of chloride of lime, or muriatic acid, will be found sufficiently stimulating in contributing to restore the diseased parts to their healthy tone and action. From the tendency which mercury has been known to evince, in this affection of the throat, by causing deep-seated ulcerations at the back of the pharynx, its employment would seem to me to be altogether contraindicated. The next form of constitutional taint, and which frequently coexists with the foregoing, is,

2. *A pustular eruption.*—This species of eruption, like that last described, is usually ushered in by much constitutional disturbance; but, like the primary ulcer, upon which it most commonly results, is far less frequent in its occurrence than the papular variety. It presents in the shape of minute red pimples, on the apices of which pus is quickly generated, discernible first on the trunk and then on the extremities. One or two spots are generally seated on the eye-brows, and at a later period the scalp is extensively engaged. These spots are caused by a circumscribed inflammatory condition of the skin, terminating in the effusion of purulent matter beneath the cuticle; in consequence of which, the epidermis exhibits a raised

or elevated appearance. They are situated for the most part upon a hard red or brown base ; and on the rupture of the pustule, a thick hard crust, created by inspissation of the purulent matter, covers the ulcer. When these incrustations fall off, superficial sores, thinly coated with a sanious pus, possessing an offensive odour, through which a granulating surface is perceptible, come into view. The pustules forming this species of eruption are distinctly divisible into two separate groups ; the first, constituting the *psydraciæ* of Willan, or the miliary syphilitic pustule of Alibert, are small, thickly scattered, arranged in clusters, and show a disposition to become confluent. When they heal, a slight depression of the cuticle, surrounded by a bright red areola, denotes the point of cicatrization. The second, the *phlyzaciæ*, are composed of isolated spots, distinct in themselves, and never running one into the other. They are more inclined to spread than the former variety, and exhibit less of a healthy aspect.

Treatment.—During the first stages of the disease, and when much febrile excitement is present, antiphlogistic measures must be put in force, and a low form of dietary adhered to. The exhibition of opium and the use of the warm-bath are highly advantageous in allaying the constitutional irritability, which is almost a universal concomitant symptom, both in the earlier and in the later periods of the eruption. When the pain and irritation have

in some degree subsided, and when the constitutional irritation has lessened, a more generous diet may be substituted, and the iodide of potassium may be prescribed in the doses formerly recommended. Donovan's solution, (Liquor Hydriod. Arsenic. et Hydrarg.) in scruple doses three times a day, may likewise be beneficially administered. To this latter preparation, however, there is a formidable objection, very few patients being able to persevere in taking it for any length of time, owing to the extreme degree of nausea occasioned by the arsenic. Under the use of the iodide of potassium, conjoined with the local applications of dilute citrine ointment to the denuded surface, the warm-bath, and the occasional employment of opiates, the eruption will speedily disappear, and the ulceration will heal kindly and steadily. I have now restricted myself to this plan of treatment for some years, and I cannot recall to my recollection a single instance in which my efforts were unattended with success.

3. *Painful distension of the Joints.*—When this symptom arises, leeching, cupping, and blistering, together with the topical application of iodine, may be required, in conjunction with the treatment above alluded to ; these remedial appliances to be regulated according to the precise stage of the disease, and in proportion to the gravity of the attack. Pain and tumefaction, occurring as a sequence of this particular sore, are generally much more severe in their character, and more

protracted in duration, than a similar train of symptoms described as resulting upon the superficial primary ulcer.

4. *Nodes*.—These painful enlargements of the bones, constituting Hunter's second order of parts, and ranked by M. Ricord under the head of tertiary symptoms, are occasionally met coetaneous with, or subsequent to, the disappearance of the pustular eruption. They are not unfrequently preceded by severe osteocopic pains, but sometimes, although rarely, present without these premonitory indications. The bones which they select as their seat are those nearest to the skin, possessing the closest and most compact texture, as the tibia, clavicle, radius, ulna, etc. They are hard and indolent in their nature, and will remain stationary for months without undergoing any change in appearance or magnitude. Sometimes, however, more particularly when seated on the cranium, a slow process of suppuration is established, abscesses form, and exfoliation to a greater or less extent supervenes. These tumours may either originate in the effusion of serum, pus, or lymph, between the periosteum and bone, or succeed to inflammation of the bone itself. Some writers would seem to insinuate that their existence is not due to the natural absorption of the syphilitic virus, but is a superadded and complicated symptom; owing to the too free administration of mercury, given with a view to the cure of the primary sore. That they

are more frequently encountered in patients who have undergone long and protracted courses of mercury, I am free to admit ; and this opinion is borne out by the returns of the great hospital in Vienna, where mercury is never used, and where disease of the osseous system rarely presents ; but that these affections are met with as the *pure* result of the absorption of the venereal poison, in individuals who never have been subjected to mercurial treatment, experience warrants me in affirming. A difficulty often arises in the mind of the surgeon, in drawing a distinction between inflammation of the periosteum caused by repeated rheumatic attacks, and that produced as the effect of the disease in question, both forms having many symptoms in common. Differences have been finely shaded by writers, deducible for the most part from the nature and extent of pain, and from the greater probability of one species terminating in caries than the other ; but the history of the case alone will, I am persuaded, afford the only true means of arriving at an accurate diagnostic conclusion. A peculiar form of disease, the subjects of it being in every other respect in the enjoyment of perfect health, is described by Dr. Colles, and termed by him a “general nodose affection of the bones,” in which a greater number of the long bones are at once engaged than ever occurs as the result of syphilis. A much more considerable length of the shaft of the bone is

likewise involved, giving it an elongated as well as a nodulated form. Mercury has been observed to exasperate considerably the symptoms of this disease.

Treatment.—Our object here will be to produce the most favourable termination, which is that of resolution, by counteracting the inflammation of the periosteum and bone, and by promoting the subsequent absorption of the effused matter. For this purpose, constitutional and local measures will both be called into requisition. Until a very recent period, patients labouring under venereal affections of the bones were indiscriminately submitted to the action of mercury. It has now, however, been clearly and satisfactorily determined, that every indication required can be much more safely and judiciously obtained by the use of iodine. I have had frequent opportunities of testing the comparative utility of mercury and iodine, in almost every stage of this affection ; and I have no hesitation in stating that, in the majority of these cases, pain and inflammation more speedily subsided, absorption of the fluid or matter was more quickly effected, the chances of exfoliation were considerably diminished, and relapses were far less frequent under the iodine than the mercurial treatment. It must likewise be borne in mind, that the subjects of these affections have been the victims of frequent attacks of the disease in one or other of its forms ; their general health

has been impaired, and their constitutions more or less shattered. It would, therefore, under these circumstances, as a general rule, be highly injudicious, if not cruel, to subject them to the action of a remedy which must further tend to undermine the vital powers, and possibly be productive of no permanent advantage ; repeated accessions constantly recurring, in which a similar course of treatment is pursued, until the patient eventually degenerates into a debilitated and cachectic condition. Should much local inflammation exist, together with any considerable degree of tenderness, the application of leeches over the node will be productive of great relief to the patient's sufferings, and will form a valuable preliminary to the constitutional treatment ; consisting in the administration of the iodide of potassium in five-grain doses, three times a day, conjoined with the topical use of the tincture of iodine. At a later stage, and should the swelling take on an indolent or chronic disposition, the frequent application of blisters will materially assist in its reduction.* A case will here, as in other varieties of the disease, occasionally present, where the above plan of treatment will disappoint our expectations, where tumefaction will continue to increase, and suppuration seem inevitable. Here a mild form of mercurialization,

* Strapping, by means of common adhesive plaster or the emplastr. ammoniaci c. hydrarg. as adopted in the treatment of swelled testicles, will prove efficacious as an auxiliary.

pushed so far as slightly to affect the gums, may be attended with advantage; and the dressing of the blistered surface with the strong mercurial ointment may succeed, where every other mode of treatment has proved ineffectual. The opening of a node, with a view to the discharge of its fluid or purulent contents, should be deferred to the last moment compatible with the ease of the patient; absorption having been known to take place, even when the skin covering the tumour had assumed an almost transparent aspect. When the operation has been determined upon, a small puncture with a lancet, or perforation with a trocar, rather than a free incision, should be made in order to relieve the distension; painful suppuration, caries, and prolonged exfoliation being not unfrequently attendants upon extensive incisions. When ulceration takes place in the integuments covering the diseased portion of bone, exfoliation will usually result. Sometimes, however, red and healthy granulations spring up from numerous small apertures in the bone, and cicatrization is in a short time effected, without any apparent loss in the osseous material. But the sunken, uneven surface, after the healing process has been completed, will demonstrate a deficiency in the bony structure produced by the process of absorption. The following is an example of the primary ulcer last described, and will tend to illustrate some of the constitutional affections alluded to, as forming the sequelæ of that particular species of sore.

Case.—M. B., æt. 28, formerly a married woman, her husband dead three years, admitted into the Lock Hospital, under my care, March 5th, 1844. States that she has been in the constant habit of indulging in ardent spirits, to the amount of twelve glasses at a time, without being completely incapacitated; for the purpose, as she expresses it, of “drowning care.” Had three children by her husband, one now living. Has, since her husband’s death, been cohabiting with a gentleman, by whom she has had one child. Five months since, in consequence of some dispute having arisen between them, they separated; she then turned on the streets, and although from that time to the present she has been constantly in the way of getting disease, she remained free from any form of it, until about three weeks ago, when she observed for the first time a sore on the inner part of the right labia, but which caused her no uneasiness. About a week afterwards, a discharge, preceded by a scalding in passing water, was observable from the vagina, after which four or five other small sores appeared on the opposite labia. Since the first accession of the disease, she has not gone in the way of additional infection. Within the last week, a pustular eruption appeared in spots, first upon the abdomen, next upon the upper part of the thighs, and subsequently on the back of the neck; a few spots are likewise interspersed through the hair. Upon examination, four or five small ulcers,

varying from the size of a pin's head to that of a split pea, are perceptible on either side of the external labia, at the junction of the mucous membrane with the skin. The one which she states first appeared is the largest and best defined, the *margins are elevated above the centre, which is even and devoid of any granulations* ; no induration accompanies it. The smaller ulcers preserve the same character in miniature. Complains of soreness of the throat, which upon examination appears more vascular than natural. There is also a dry and granular appearance of the back of the pharynx, but no apparent ulceration. Matter taken from the best defined ulcer was inoculated on the upper part of the thigh, the ulcers were touched with the nitrate of silver, and she was put on the use of the iodide of potassium in five-grain doses three times a day.

March 10th. Pustular spots larger ; sores below contracting in size.

17th. Inoculated part presents the characteristic pustule, which was cauterized with nitrate of silver. Eruption for the most part desquamating, with the exception of one large spot in the left iliac region. Complains of pain in the right hypochondrium, which shoots up to the shoulder of the same side. Percussion over the region of the liver elicits a dull sound, and that viscus is perceptibly enlarged.

Repetat. Potass. Iodid. emp. vesicat. lateri dol. Balneum tepid.

A superficial slough covers the back of the pharynx; which is extremely granulated in appearance.

Garg. Chlorid. Calcis.

18th. Sores have almost healed; the eruption continues to desquamate; pain has left the side and shoulder since the application of the blister; inflammation has disappeared from the throat, and the posterior part of the pharynx looks much healthier than before.

Pergat ut antea.

21st. Throat well; sores healed; eruption fading.

28th. Discharged cured.

Having now completed the description of the second class of primary ulcer, which holds a place intermediate between that first treated of and the one next in order, and having pointed out the constitutional affections likely to result upon the absorption of the virus from that particular sore, with the treatment most appropriate for their cure, I shall now pass on to the consideration of the third variety of ulcer.

CHAPTER XI.

THIRD CLASS.

Phagedenic Primary Ulcer.—The term *phagedena* has been used differently by authors. By some it is employed to express every form of destructive sore, whether owing to ulceration or sloughing ;* whereas by others its signification is more limited, and a line of demarcation is attempted to be drawn from the appearances which the ulcer may at one time or other assume. Thus, Mr. Evans, in his treatise on ulceration of the genital organs, speaking of phagedenic and sloughing ulcers, says :—"By the first of these terms I understand the removal or dissolution of a part, without any trace of its existence being left ; by the second, the removal of a part which still exists in substance, though in an altered or perhaps diminished form." Whilst a more modern writer,† without giving any general definition of the terms, proceeds to arrange the disease under different classes, according to the colour of the slough, and the constitutional distur-

* Abernethy on Diseases resembling Syphilis, p. 67.

† A Treatise on Venereal Diseases, by William Wallace, M.R.I.A. 1833.

bance that may happen to result in each particular form ; but as he acknowledges that one species runs into the other, and that it is not easy to say where the distinguishing characters of the one terminate, or those of the other commence, I will not stop here to examine into the merits of a classification that can answer no useful purpose.

Without entering into the etymological signification of the terms, I shall take the more enlarged, and what I conceive the more practical view of the subject, by giving the appellation phagedenic to sores caused either by the process of ulceration or sloughing ; and if there be one species of disease acquired by impure sexual intercourse, to which the designation venereal is given, with the nature and treatment of which the surgeon ought to be familiar, it is the form under our consideration ; so much depending upon the promptitude with which the remedies are applied, and the judgment with which they are administered ; and therefore the mind of every practitioner ought to be made up as to the mode of treatment he should employ in such a case, were his services demanded (as they generally will be) on an emergency. Before proceeding further, it will be necessary here to premise that, in this description, I confine myself to that class of ulcer which *commences* as a phagedenic sore. I am aware others may assume that character from neglect, local irritation, or frequently from a small quantity of mercury ; for

instance, I had lately a case under my care, which became, phagedenic from the internal administration of ten grains of blue pill.

This ulcer differs in many particulars from any other form of the disease.

It is not, like the Hunterian chancre, attended with any induration of the base or margins; neither were any of the ulcers which came under my notice excavated to any considerable extent. Its progress is in general much more rapid than that of any other sore occurring on the organs of generation, and it gives rise to a train of constitutional symptoms of a much more inveterate nature than any hitherto described.

It has been affirmed that the difference in the symptoms of this class arises altogether from the constitution of the patient, and is not at all owing to any peculiarity of infection; and in confirmation of this opinion is cited the case of the celebrated Lisbon opera dancer, detailed by Dr. Ferguson in the fourth volume of the *Medico-Chirurgical Transactions*, who having infected, as he states, a young officer, continued on the stage for many months afterwards; "occasionally infecting others, without anything extraordinary, as far as I could learn, in the nature of the symptoms." The explanation of this paradoxical case given by Mr. Carmichael, would seem to me to go far in accounting for the dissimilarity of the symptoms in both patients; namely, the supervention in the male of active in-

flammation of the penis, attended with high symptomatic fever, which was permitted to proceed unchecked by the proper remedial appliances, until at length an unhealthy gangrenous condition of the parts resulted, all of which may have been perfectly reconcileable with the existence of a mild form of disease in the female. Again, it is not at all improbable but that this female may have been labouring under some form of unhealthy ulceration of the neck of the womb, which would in itself be quite sufficient, as shown by M. Cullerier, to account for the gravity of the symptoms referred to. It rarely happens that we are consulted by a patient who has recently contracted a phagedenic ulcer; and on this account we are not always able to state what was the first indication of disease. If we inquire, he will tell us it commenced either in a small black spot resembling a grain of shot, or that a "pimple" was the first intimation of its existence; that it rapidly increased in size, without causing much uneasiness;* and that his fears were first excited by a bleeding that took place from its substance. When we come to examine it, we find the surface of a dark, ashy colour, to which a bloody matter tenaciously adheres; it neither exhibits granulations nor surrounding induration; the edges are irregular and undermined; the parts bordering upon the ulceration are of

* The pain and constitutional disturbance, however, often keep pace with the progress of ulceration.

a reddish hue ; the smell extremity fœtid ; and at this stage it is generally attended with considerable pain. In the male, the part principally engaged is the glans penis, from which it afterwards extends to the prepuce ; in the female, the external labia pudendi in the first instance, from which it spreads with extreme rapidity, and if not quickly checked, involves in its ravages the vagina, perinæum, and anus, and sometimes even the bladder and uterus. This species of ulceration is associated with a want of energy in the constitutional powers, and an excess of irritability ; the pulse is frequent, but not indicative of strength ; tongue foul and loaded, countenance anxious, and pain sometimes severe. The fever at the commencement is occasionally of a highly inflammatory nature.

Treatment.—The indications of cure are threefold ; first, to subdue the accompanying fever ; second, to allay irritation ; and third, to check the sloughing process. The first is effected by the usual antiphlogistic measures, bleeding and the employment of tartar emetic. The former plan of treatment, followed up perhaps by the latter, is to be preferred in private practice, when you have a strong plethoric patient to deal with, and when the fever is of a sthenic character. But when you come to deal with the inmate of an hospital, with a constitution broken down by frequent courses of mercury, intemperance, and various privations, you will find that the lancet may be dispensed with,

and even in some cases tartar emetic will not be borne. When the latter line of treatment, however, is called for, I find much benefit from prescribing it in small and repeated doses, in combination with opium.* The local abstraction of blood is recommended by Mr. Lawrence, who is in the habit of dividing the prepuce in a great number of instances, in the worst forms of ulcerations, without having witnessed any ill result from the practice. I cannot, however, avoid coinciding with M. Ricord in opinion, that such a line of procedure is open to the gravest objections, from the extension of ulceration likely to ensue; inoculation of the specific virus of the sore, even from the application of leeches in the immediate vicinity, having often given rise to ulcers of an almost unmanageable description. To allay the irritability and alleviate the pain, which are frequent if not invariable concomitants of the disease, conium and large doses of opium have been resorted to. The préparation which I select is the muriate of morphia, which I exhibit in half-grain doses, in the form of a pill at bed-time, seldom employing active sedatives during the course of the day.

The grand object to be attained, to which the foregoing treatment is merely preliminary, and in

* R. Antimonii tartarizati, gr. ii.

Tinct. opii, ℥ss.

Aquæ puræ, ℥vss.

Syrupi simplicis, ℥iv.

Misce. Sumat cochlearia duo ampla ter in die.

comparison of which every other indication must be looked upon as subservient, is the arresting of the ulcerative or sloughing process. I will not stop here to recount the various remedies that have been had recourse to, at different times and by different practitioners, for this purpose; the task would prove as useless as it would be uninteresting, many of them having long since sunk into deserved oblivion; but shall at once proceed to a plan of treatment which is attended for the most part with beneficial results, and which I have employed extensively in the wards of the Lock Hospital for some years, with the most complete success. I allude to the application of the strong nitric acid, which is to be used freely to the sore, and repeated until a clean vascular surface comes into view. The first or second application is not attended with any considerable degree of pain, as the disorganized material tends to protect the more sentient parts; but in proportion as the more sloughy matter becomes detached, the pain is increased on each successive application. The parts should be enveloped immediately after the employment of the escharotic in a warm poultice, which will be found most grateful to the patient, and assists the separation of the disorganized mass. If the slough, as occasionally happens, should be reproduced, it will generally be to a partial extent, and at this period equal portions of balsam of Peru and castor oil will hasten its detachment. Fomen-

tations and water dressing subsequently encourage granulation and promote cicatrization.

At the same time that active topical measures are resorted to, constitutional remedies must not be neglected. The administration of the iodide of potassium, in five-grain doses three times a day, will be found highly beneficial, and will materially subserve to the restoration of the healthy action of the parts. When we consider the properties of this valuable therapeutic agent in increasing vital energy and action, giving strength and fulness to the pulse, in improving the appetite and assisting the powers of digestion, it is not surprising that its benefit is so perceptible in a form of ulceration denoting a want of power and excess of irritability.

Before taking leave of this part of the subject, I may briefly allude to a plan of treatment adopted by Dr. Tuohill of this city as a *dernier resort*, in a case that appeared to bid defiance to every mode of cure suggested during its tedious progress; namely, the employment of creosote as an internal remedy, and extract of belladonna as an external application. "The belladonna was applied twice a day. About the size of a large pea of the extract, diluted with a dessert-spoonful of water, was poured on the ulcer, and after being allowed to rest for a few minutes, it was covered with lint and oiled silk. The creosote was formed into an emulsion, in the proportion of twelve drops to eight ounces, and two table-spoonfuls were given three times a day. Both

medicines were made use of without a day's intermission, from the 8th of June to the 7th of August, when the healing process was completed."* I have given the above plan of treatment a fair trial in three instances, the details of which are at present before me; but regret to say without being able to produce the slightest amelioration in the symptoms of the disease; and I am therefore disposed to conclude, that the curative effects imputed to those remedial agents were more attributable to the action of time than to any inherent efficacy in the medicaments employed.

The remarks already made on the treatment of the primary phagedenic ulcer would be incomplete, were no allusion made to the use of mercury. I should have passed over in silence any reference to its indiscriminate employment, in this destructive form of ulceration, were I not convinced by experience, that there are those who, wedded to the habitual use, or, more correctly speaking, the abuse of that mineral, and firm believers in its all-potent efficacy, carry predilection in its favour even to the treatment of this form of disease in all its varied stages. As regards the subjects of this affection, that came under my immediate care in the wards of the Lock Hospital, I may mention that in every instance in which mercury had been used either previous or subsequent to admission, the spreading process inva-

* Graves' Clinical Medicine, first edition, p. 388.

riably increased ; and in some cases in which this remedy was persevered in, even for a short period, the destruction of parts which ensued was frightful in the extreme. Illustrative of the accuracy of this statement, I might cite numerous examples ; but shall content myself merely by adducing two cases, in the first of which that disposition was induced in the sores, although not originally of a phagedenic or sloughing nature ; and which, doubtless, under a milder and more judicious line of treatment, would have healed in the ordinary time, without causing any great amount of inconvenience to the patients. In the same case it will be observed, that to a very small quantity of blue pill were attributable these injurious effects.

Case 1.—M. M., aged 27, a married woman, of strong and healthy appearance, temperate habits, and mother of three children, the youngest but two months old, admitted October 19th, 1844. About a fortnight since, she for the first time experienced scalding in passing water, which in two days was followed by a vaginal discharge. At the same time, she perceived a sore form on the external labia, but is not able to describe with any degree of accuracy its first appearance. Upon examination, an ulcer about the size of a split pea is perceptible on the left labia ; the right is also occupied by one, but much smaller in extent. They are but very slightly excavated, without induration. Suffers no uneasiness, with the exception of a scalding sensation

when the discharge comes in contact with them ; they are not surrounded by an inflammatory areola. Bowels confined. Ordered a purging draught, and after its action blue pill, with opium, ten grains each night ; black wash to be applied to the sores.

October 21. The ulcers have spread to a considerable extent on the labiæ, which are swollen and inflamed. The blue pill and black wash were omitted, and a poultice applied to the parts.

23rd. The inflammation and swelling of the labiæ have increased, and it is with difficulty she is able to walk. Pulse 98 ; small. Ordered the tartar emetic mixture and opium every third hour.

26th. The swelling has left the parts, and the ulcers can easily be seen. That on the left side has involved almost the entire of the labia on its internal surface, but has not penetrated deeply into its substance. The right has increased to about the size of a shilling ; both are covered with a dark brown tenacious matter ; complains of considerable pain and loss of rest. The tartar emetic mixture omitted, for which the iodide of potassium was substituted. Ordered half a grain of muriate of morphia in pill each night. The ulcers were freely touched with strong nitric acid.

28th. The sores have somewhat spread, but their surfaces are cleaner than before. The acid was again applied.

31st. Sloughy matter nearly disengaged from the surface of the ulcers ; spreading process arrested.

Ordered a dressing composed of equal parts of the balsam of Peru and castor oil.

November 4th. Healthy granulations have now appeared, and cicatrization has commenced. From this until the 27th instant, there was nothing worthy of note ; the healing process progressed rapidly and steadily, and she was discharged cured on the above date.

The next case I shall bring forward, in order to prove the baneful effects of mercury on the spreading ulcer, is different from that already cited, inasmuch as the sore was not situated upon the parts of generation ; and on this account it may be doubted whether it owed its origin to a former syphilitic affection, or whether it ought not to be classed under that species of ulceration to which the name "lupus" is given. Under this last impression, I was led to adopt a mere local line of treatment in the first instance ; but subsequently, convinced that the disease was dependant on constitutional taint, in which opinion I was confirmed by the appearance of a well marked venereal eruption, I commenced the use of the remedy I commonly employ under such circumstances.

Case 2.—Mary A. B., aged twenty-two, unmarried, of healthy appearance but intemperate habits, admitted June 25, 1844. Was under my care five weeks ago for a vaginal discharge, which disappeared under the usual treatment. Shortly after leaving the hospital, she contracted a sore,

which healed up, under the application of a wash, in a few days. Of the nature or appearance of the ulcer she can afford no satisfactory description. About three weeks from the present date, she observed a small pimple make its appearance, midway between the angle of the mouth and ala of the nose on the right side, which gradually increased, and in the course of a few days broke out into an open sore. At this period, in consequence of a theft committed, she was confined in one of the gaols in this city ; and while an inmate of the prison, the case came under the notice of the medical attendant, who put her on the use of mercury, which quickly induced ptyalism. During the continuance of this treatment, the ulcer continued rapidly to spread, until her final discharge. Alarmed at the extent of the sore, she lost no time in presenting herself for admission into one of the general hospitals, where she was immediately received, and placed under the care of one of the visiting surgeons ; but here, as in the former instance, she was doomed to a "course of mercury," with no happier results than before. Her fears having been roused, and apprehensive, as she states, that operation was the only remaining remedy, she managed to make her escape from the hospital, and appeared as an applicant at the Lock, where she presented the following symptoms. Gums tender, with mercurial fœtor. The ulcer now occupies the angle at the right side of the mouth, extending round the

greater part of the upper lip, and reaching nearly as high as the nostril on the same side. At the inferior margin, it has completely perforated the mucous membrane of the mouth ; the edges are everted, with slight induration. Is free from pain, except when she makes an effort to open the mouth. On the surface of the ulcer a muco-purulent matter tenaciously adheres ; has been attended with occasional hæmorrhage ; pulse 96 ; tongue coated ; bowels confined ; ordered a purging draught, with half a drachm of *Liq. Antimonii Tartarizati* ; a poultice to be applied to the sore.

June 26th. Touched the surface with strong nitric acid ; poultice to be continued ; as mastication is attended with great uncasiness, she was ordered, as diet, flour and milk.

27th. Did not suffer much from the application of the acid ; the surface of the sore somewhat cleaner ; the same treatment continued.

28th. Suffered much more from the effect of the caustic than on former occasions. Surface more vascular and healthy in appearance ; touched again with the acid, and poultice repeated.

29th. Surface cleaner and more vascular ; the tendency to spread seems to have ceased, but there has been no effort at reparation. As the application of the acid on yesterday occasioned considerable pain, its use was omitted to-day, in order to try the effect of poultice alone.

July 1st. No observable change since last re-

port ; bled a little upon the removal of the poultice this morning ; complains of a burning sensation around the margins, which are slightly inflamed.

3rd. Complains of the meal being too hard, for which a bread poultice was substituted ; the ulcer now shows an evident disposition to spread.

4th. Touched the edges with the acid. They were irregular and everted ; surface much cleaner ; a papular eruption is now beginning to present on the arms and back of neck. Ordered the iodide of potassium in five-grain doses three times a day.

6th. The edges are more uniform ; the surface is cleaning, and exhibits healthy granulations. Pain more considerable than before. As reparation has now taken place to some extent, the topical application of the acid was discontinued ; the iodide of potassium was repeated.

8th. Has filled up materially since last report ; the inflamed margin has entirely disappeared, and cicatrization has commenced. Pain considerable ; discharge from the ulcer healthy ; eruption more diffused over the neck and arms, and a rupial spot about the size of half a crown is perceptible between the shoulders.

12th. The centre is nearly on a level with the edges. From this date until the 16th of August, when she was discharged from the hospital, she continued to improve ; the ulcer was com-

pletely healed on the 29th of July, and from the contraction of the cicatrix, the mouth presented a distorted and puckered appearance. The eruption did not finally desquamate till a fortnight afterwards.

“Under the notion that mercury was a specific for syphilis,” says Mr. Lawrence, “it has no doubt been exhibited in phagedenic as well as in other forms of the disease. Long courses of it have been used in the phagedenic form, because the symptoms would not yield, and have been rather exasperated by the remedy. The symptoms have occurred over and over again ; mercury has been had recourse to as often ; and thus, by the serious nature of the disease, and partly by the injudicious use of this powerful remedy, patients have been brought into a state of great weakness, and no doubt in many instances their lives have been lost in consequence.” It must, however, be acknowledged as a fact, by every surgeon who has had experience in the treatment of phagedenic ulcerations, that a few isolated cases are occasionally met with, in which mercury acts beneficially ; and it will doubtless be asked, what peculiarities are present in such instances, which cause them to form exceptions to the general rule ? Upon this point there is a considerable diversity of opinion. According to one author, it may be prescribed where there is nothing but ulcerative absorption, without any trace of inflammation in the surrounding parts, and where no constitutional disturbance

is present ; according to another, it should be used as a last resource, where every other remedy has failed to arrest the destructive process ; and on the authority of a third, its use is only admissible when the ulcer assumes an indolent character. Were I to hazard an opinion upon so disputed a question, and one certainly not void of practical importance, I would say that if, after persevering in the employment of the remedies alluded to for a reasonable time, without any advance towards reparation, the ulcer should evince no further disposition to spread, which will be apparent by the superficial coating of the sore acquiring a degree of firmness ; if the accompanying irritability be subdued ; if the sore assume those characters that are known to distinguish indolent ulcers of a non-specific nature, mercury may then be cautiously administered, not with a view to its anti-syphilitic properties, but to stimulate the parts to take on a healthy action. I shall now proceed to the description and treatment of the usual constitutional affections resulting upon the primary phagedenic ulcer ; and here it may be observed, that those symptoms are less likely to follow the absorption of the virus from this particular sore, in consequence (as first noticed by Mr. Pearson) of the rapid destruction of the parts engaged in the disease.

1. *Sloughing ulceration at the back of the pharynx*
On the accession of this formidable affection of the throat, which not unfrequently involves in its

ravages the nares and larynx ; a high degree of irritative fever is usually present ; the pulse is extremely rapid ; the skin hot and dry ; and a peculiar appearance of distress and anxiety is portrayed in the countenance of the patient. When interrogated as to the symptoms of his complaint, he will tell you that he experiences much pain in the throat, which is considerably exasperated by any effort at swallowing ; that there is a constant flow of viscid saliva from his mouth ; that his rest is broken and disturbed ; and that he is in constant dread of suffocation, owing to the rapid secretion and accumulation of saliva. Should the larynx participate in the disease, superadded to the foregoing symptoms will be noted almost complete loss of voice, to which a nasal tone will be given, if the inflammation have engaged the nares. This latter affection will be attended with a discharge of offensive matter, occasionally tinged with blood. When we come to inspect the fauces, we will find that the velum, tonsils, but more particularly the back of the pharynx, are in a state of sloughy ulceration, to the surfaces of which a yellow tenacious matter intimately adheres, and which is incapable of removal by the ordinary means. Mr. Carmichael enumerates caries of the nasal bones as one of the regular sequelæ of the primary phagedenic ulcer ; but as I have never met with this complication, except in patients who had been submitted to the action of mercury, I am disposed to

think that it is not one of its natural attendants. Exfoliation of a portion of the rings of the vertebræ will, however, occasionally occur in patients who have never taken mercury. This result may either be produced by deep and extensive ulceration, or may succeed to an abscess in this situation.

Treatment.—The employment of both local and constitutional remedies will be required to arrest the ravages of this disease. The former will consist in the free and repeated application of nitric acid, or the acid nitrate of mercury, to the surface and margins of the ulcers ; with the frequent intermediate use of the oxymel æruginis, or muriatic acid gargles.* This line of treatment should be persevered in, until the white tenacious matter with which the ulcers are coated is completely detached, the spreading process arrested, and a healthy vascular surface exposed. The latter will include the exhibition of the iodide of potassium in five-grain doses three times a day, a remedy which in this affection is attended with the best and most salutary results. The patient's strength should, at the same time, be supported by a generous form of diet ; and if solids cannot be taken, nutritious broths should be prescribed. When the disease attacks the nares, the incrus-

* Garg. *Oxymel. Æruginis.*

R. Oxymel Cupri Subacetatis, ℥ij.

Aquæ Puræ, ℥vi.

M. Ft. Gargarisma.

Garg. *Acid. Muriatic.*

R. Decoct. Hordei, ℥viiss.

Acid. Muriatic dil. ℥j.

Sacchari Albi, ℥j.

M. Ft. Gargarisma.

tations and foetid matter which usually accumulate should be removed by syringing with warm water ; after which, should the ulcer be seated sufficiently low to admit of being seen upon inspection, no time should be lost in applying to it a pencil of nitrate of silver. Should examination, however, fail in determining its site, the parts should be syringed with a weak solution of nitrate of silver, commencing with a grain of the salt to an ounce of water. I have never found any permanent advantage from the topical or general use of mercury, in sloughing ulcerations of the throat ; nor have I ever succeeded in arresting the disease of the nares by its employment. Mercurial fumigations should, as a general rule, be avoided ; but where the practitioner is tempted to resort to them, their action should be closely watched, as, in addition to promoting the ulcerative process, they not unfrequently peril the life of the sufferer, by inducing spasm of the glottis. The cures which have been said to have been effected through their agency are generally of short duration ; for even when a pellicle of apparently healthy covering is seen to coat the surface of the ulcer, a few weeks will, by the return of the complaint, be sufficient to prove that no lasting benefit has been achieved. When, however, the disease has originated in the larynx, and is confined to a small portion of the tube, the internal cautious administration of mercury, together with counter-irritation to the external parts, has

been productive of decided advantage ; and in corroboration of this latter remark, M. Cazenave has recorded some cases of this form of the disease, which were cured by the iodide of mercury. Mr. Carmichael has obtained some temporary relief for the patient, by the application of a six or ten-grain solution of the nitrate of silver, which he passes into the larynx by means of a long curved probe, or bougie. "In the act of passing the bougie, thus armed, into the larynx, the patient should be desired to project the tongue as far as possible from the mouth, which prevents the epiglottis from closing the aperture of the larynx ; but in the great majority of cases, I must confess that nothing more than mere temporary alleviation was obtained by this, or any other measure I have seen tried, with the exception of tracheotomy."*

Abscesses, the result of the irritation and inflammation of these ulcerations, are sometimes met with in front of the bodies of the vertebræ, and behind the broad portion of the cricoid cartilage. The formation of matter in this situation is productive of serious and alarming symptoms, the patient being completely unable to swallow, and respiration being with the utmost difficulty carried on ; fluctuation can rarely be detected in them, even when the suppurative process has advanced to a considerable extent, owing to the strong fascia by which they are covered. The symptoms which,

* Clinical Lectures, p. 142.

in addition to those stated, characterize this affection, are a peculiar tense and swollen condition of the upper part of the neck, intense pain on pressure, and inability to open the mouth beyond a certain point. Great anxiety is at the same time depicted in the patient's countenance, and there are the usual indications of high symptomatic fever. These abscesses, in order to relieve those urgent symptoms, will require to be opened as soon as the existence of matter is ascertained. This may either be effected by means of a sharp-pointed bistoury ; or if the collection of matter be extensive, by the intervention of a curved trocar. The latter instrument, by drawing off the purulent deposit, will prevent the possibility of its escape into the larynx.

2. *Rupial eruption*.—The period which elapses between the appearance of the primary sore and the accession of cutaneous disease varies considerably. The average time may be stated to be about five or six weeks ; sometimes the eruption makes its appearance before, but most commonly not till after the cicatrization of the original ulcer. It is often, but not invariably, ushered in by fever, which is diminished but not removed by the development of the eruption. The patient will generally complain some time previous of indisposition, without being able to assign any cause ; his countenance will be pale and anxious ; he will suffer from loss of rest, and in some instances from head-aches at night.

When the eruption is perceptible, it will usually be found to consist of tubercles or pustules, which soon degenerate into ulcers, covered with blackish thick crusts. These, on peeling away, disclose a sore peculiar to this eruption, having a disposition to heal in the centre* whilst the circumference is spreading. The crusts covering the ulcers have often a conical appearance, resembling the disease so well described and delineated by Bateman under the title of *rupia prominens*. These concentric laminæ will more particularly be observable on parts of the body where there will be freedom from injury, and no constriction from dress; on this account, they will be found most perfectly depicted upon the forehead, and the posterior part of the neck of females, which is most exposed. This form of ulcer frequently extends to a great size. Mr. Carmichael has seen a case where it commenced in the arm, and extended over the shoulder and the integuments of the back which cover the scapula; exhibiting a vast surface of red, shining, new-formed skin, surrounded by a border of phagedenic ulceration, from half an inch to an inch in breadth.

Treatment.—When the inflammatory symptoms have subsided, there is no remedy which exerts a

* Mr. O'Ferrall of this city has endeavoured to account for the healing process commencing in the centre, by supposing it may arise from the skin being here destroyed, the parts underneath throw out granulations, which soon cicatrize, while at the same time the ulcer still continues to make progress at the circumference.

more beneficial control over the disease than the iodide of potassium ; the ulcerations quickly assume a healthy character ; and if the remedy be steadily persevered in, a cure is speedily effected. As a local application, the Ung. Hydarg. Nit. Oxyd. diluted with an equal proportion of lard, will be found particularly serviceable ; first in tending to soften the crusts, and subsequently as a stimulant in assisting to heal the ulcers. Conjointly with the above, I was for some time in the habit of prescribing sarsaparilla broth, a preparation made by boiling beef in the compound decoction of sarsaparilla. This I used to look upon as forming a valuable adjuvant, in addition to the other therapeutic measures ; but of late years I have dispensed with its employment, having been convinced that any benefit deriveable from its use owed its origin to the nutritious properties of the meat, and not to the vehicle in which it was administered. Generous and nourishing diet should therefore constitute an important indication in the treatment of the disease. In speaking of the cautions required in the management of the primary phagedenic ulcer, I stated that, as a general rule, mercury was contra-indicated. The same remark will apply with equal force to the treatment of the affection under consideration ; as, instead of the ulcers evincing a kindly disposition when subjected to its action, the ulcerative and spreading process makes rapid strides, the strength of the patient is prostrated, and an

exhausting and incontrollable diarrhœa will, in all probability, put a termination to his sufferings. I have witnessed some cases of *apparent* cure under alterative doses of that mineral; but the almost certain accession of fresh and more inveterate symptoms clearly demonstrated that it possessed, in this form of disease, no radical curative qualities. "But the administration of mercury," says Dr. Colles, "to patients afflicted with rupia, is worse than useless in all cases where the patient is naturally delicate, or has been much reduced and lowered by the previous disease; for, in all such, it proves almost invariably fatal, by increasing the weakness, and generally by inducing an uncontrollable diarrhœa. It was only in a few very robust men that it could be said not to have proved highly dangerous or fatal."* Change of air, more especially at the sea side, should always be recommended, when the patient's means will permit, both in this and the former variety of the disease; as it materially contributes to the promotion of convalescence.

3. *Severe pains in the joints.*—The joints most likely to be attacked in this affection are the knee and elbows; the hip, ankle, and the other articulations are more rarely involved. The pain is usually of an excruciating character, far more violent in its nature than that which is met with consequent

* Observations on the Venereal Disease, pp. 179—180.

upon the second class of primary ulcer, and requires more acute and energetic means for its removal. Mr. Carmichael details the history of a case in which the disease progressed under the use of mercury, until the cartilages were completely destroyed, and purulent deposits formed in the joint. Amputation was resorted to, but the patient, worn down by repeated courses of mercury, sunk and died, and examination of the limb disclosed the disorganization alluded to.

Treatment.—At the onset of the disease, and during the existence of violent inflammatory symptoms, relays of leeches to the affected joint will be attended with much benefit ; opiates, either in the form of Dover's powder, or muriate of morphia, will at the same time be demanded with a view to the alleviation of the patient's suffering. When the inflammation has been subdued, the administration of the iodide of potassium will be productive of advantageous results. Counter-irritation, by means of blisters, the tincture of iodine, or hydriodate of potash ointment, will likewise, in the more chronic stages of the complaint, conduce to the restoration of the joint. The occasional use of the warm or vapour bath will be found most grateful to the patient. Should much effusion take place into the synovial membrane, and should the distention and enlargement still persist, notwithstanding the continuance of the above line of treatment, a mild degree of ptyalism, so as to stimulate the

absorbents to increased action, may, as in other varieties of synovitis, be advantageously produced.

4. *Nodes*.—These enlargements are frequently encountered in individuals suffering from the constitutional effects of the primary phagedenic ulcer, and the observations as regards their nature and treatment, made when detailing the sequelæ of the ulcer with elevated margins, will be equally applicable here. I shall now, in order to illustrate more clearly the primary and constitutional symptoms of this species of sore, adduce two examples ; which I select from others, the particulars of which are at present before me.

Case 1.—D. M., aged twenty-nine, unmarried, of intemperate habits, admitted under my care, July 11th, 1843. The whole of the back of the pharynx is engaged in one extensive slough ; the voice is nasal ; complains of great pain and difficulty in deglutition ; never discharged any crusts from the nose, the bones of which appear intact. Upon careful inquiry into the history of the case, she states as follows. That she was first admitted into the hospital about seven years ago, under the care of my late father, for a sore that occupied the left labia ; that it commenced in the form of a “pimple,” which in a day or two broke and rapidly spread into a large open sore, the discharge and odour attending it being extremely offensive. That, alarmed at the rapidity of its increase, and suffering from excessive pain consequent upon it,

she lost no time in seeking admission into hospital. Fermenting poultices were had recourse to without intermission for nearly six weeks, the greater part of which time she was confined to bed from inability to walk. She was discharged cured, her entire stay in hospital being eight weeks. She continued free from any form of the disease for three years, when she again applied for admission with sore throat; which, from her description, appears to have been ulceration at the back of the pharynx. Her throat at that time was cauterized with solid nitrate of silver, and she was put on the use of the iodide of potassium, in combination with the compound decoction of sarsaparilla. She since has had three relapses of the sore throat, for which she was treated in this hospital. Two years ago was here for a large rupial spot, about the size of an ordinary saucer, the cicatrix of which is still perceptible between the scapulæ. At that time also she had a node on the anterior part of the left tibia, and acute inflammation of the knee of the same side, which yielded to the usual remedies adopted in these cases. She is at present under my care for a tuberculated condition of the face, a form of disease, I may remark, the most intractable and most difficult of cure of any that falls to my lot to treat. She never used mercury in any form.

The foregoing case is in itself an epitome of the history of the phagedenic form of syphilis. In the first place, we have the primary phagedenic ulcer,

with its appropriate characteristics, and then, following in slow but sure succession, its usual sequelæ, namely, extensive ulceration at the back of the pharynx, rupia, nodes, inflammation and swelling of the knee, resembling acute synovitis; and lastly, a tuberculated condition of the face, an affection which I have in two or three instances observed in this form of disease; but having met with it as an isolated symptom in other varieties, I would not, from my limited experience, be warranted in ranking it as one of the usual consecutive results of the primary phagedenic sore.

Case 2.—A. C., aged twenty-six, of tall, slender make, and temperate habits, admitted July 25th, 1843, was never infected with the disease until about six weeks ago, when she contracted a gonorrhœa. Within the last few days, after suspicious connexion, she observed a sore which obliged her to seek for medical advice; she took some pills while out, (supposed to be mercurial) without producing any perceptible effect. An ulcer occupies the inner surface of the left labia pudendi, commencing about its centre, and extending to its inferior or perineal margin, where it takes a direction outward in the fold between the nates and thigh. It runs as far back in the vagina as can be seen by separating the parts. The surface is covered with a dark brown tenacious matter; the margins are unattended with induration, irregular, undermined; and surrounded with an inflammatory

areola; a strong foetor is perceptible on the approach of the patient. Pulse ninety-five; thirst insatiable; bowels confined; says she has not slept for the last three nights. Ordered a purging draught, containing half a drachm of the liquor antimonii tartarizati; a poultice to be applied immediately to the ulcer; half a grain of the muriate of morphia in pill at bed-time, and a quart of milk daily.

July 28th. Ulcer has spread considerably since last report; the surface, however, is looking cleaner; pulse eighty. Touched the surface freely with strong nitric acid; after which a poultice was directed to be applied; ordered decoction of sarsaparilla, with dilute nitric acid.

30th. Surface much cleaner; suffered some pain from the application of the caustic, which was repeated to-day; poultice to be continued.

August 1st. The spreading process appears to be quite arrested; the surface clean, but no granulations are perceptible; foetor very much diminished; did not use the caustic, but ordered a dressing consisting of equal portions of Peruvian balsam and castor oil. Under this mode of treatment, the ulcer healed rapidly; when, on 12th of August, an eruption was ushered in by the usual febrile symptoms, which in a few days assumed the character of *rupia prominens*. The primary ulcer at this time had nearly cicatrized. The dilute nitric acid was now discontinued, and the iodide of po-

tassium substituted in its stead. She complains also of soreness of throat. On examination, a superficial slough is seen covering the back of the pharynx, to which a yellow tenacious matter intimately adheres, and which cannot be wiped away by means of lint wrapped round a probe. Ordered the muriatic acid gargle. The eruption is confined to the back of the neck ; two small spots have appeared on the right arm.

15th. The ulcers have increased in size ; those on the back are about the size of half a crown, and covered with blackish thick crusts ; the ulceration at the back of the pharynx has extended deeper. The dose of the iodide of potassium to be increased from five to ten grains, three times a day ; touched the throat with the acid nitrate of mercury, a preparation, I may here remark, introduced into this country by my respected friend and late colleague, Dr. Byrne, and preferable in such cases to the strong nitric acid, the fumes of which intercept the view of the operator.

21st. The crusts have fallen off, and large ulcers of a peculiar appearance are discernable beneath ; one on the neck and another on the arm have already commenced to heal from the centre. There is nothing worthy of note from this until she was discharged on the 28th of September ; the sores healed rapidly, and the ulceration of the throat was completely arrested. She got some tepid baths previous to her leaving the hospital, as she com-

plained of pains in the shoulders and knees. No nodes presented while in the institution.

The last class of primary sore which remains to be described is the indurated ulcer, to the consideration of which, together with its usual consecutive results, I shall now proceed to address myself.

CHAPTER XII.

THE INDURATED PRIMARY ULCER.

THE formation of the Hunterian chancre, the true type of a venereal ulcer, is in its origin like that of the other varieties of primary sores. It commences as a vesicle or pimple, unattended with any degree of pain or uneasiness ; but, unlike the other forms of which we have spoken, instead of showing an early disposition to spread, it progresses slowly, gradually, and often imperceptibly. It occasions during its advancement no local suffering, and assumes an indolent character ; its distinctive features not being fully developed until sometimes the second or third week from the date of its accession. In extent it varies much, ranging from the size of a split pea to that of a fourpenny piece, and occasionally, but rarely, exceeding these latter dimensions. Its centre is usually but not necessarily excavated, smooth and destitute of granulations, and thinly smeared with an ichorous secretion. Its base and margins are indurated, giving the sensation of a piece of cartilage under the skin

terminating abruptly. This interstitial or subcutaneous effusion, constituting the cartilaginous hardness, is a superadded symptom ; never exhibiting itself upon the formation of the ulcer, and being often protracted until a late period from its advent. Nor is it proportioned to the depth or circumference of the ulcer, being frequently more apparent where there is but little excavation, and when the sore is much limited in extent. Owing to this last named peculiarity, we never find the indurated sore, when uninterfered with by art, take on the characters of the phagedenic ulcer ; nature having thrown around it this protecting ring, by which its local action is restricted within narrow limits. But while this is so as regards its topical disposition, we will perceive as we proceed that there is no form of primary affection more likely to produce constitutional taint than that which we are now considering, the concentration of the virus favouring enormously the absorption of the syphilitic poison ; indeed, to such an extent, that it is by many believed that general contamination must of necessity succeed to the indurated chancre. Fortunately, however, the Hunterian ulcer is now but seldom met with. In referring to a former chapter, it will be observed that out of three hundred primary sores that came under my own immediate inspection, thirty only were attended with well marked induration. The paucity of these primary sores will likewise explain the less fre-

quent occurrence of the constitutional symptoms, which are well known to supervene upon them. That other forms of primaries, when set astray by over local stimulation, (more especially those to which escharotics have been applied) closely simulate the indurated ulcer, is a circumstance with which all syphilographers at the present day are conversant ; and from these factitious indurations has, I doubt not, arisen the mistake into which former authors had fallen, in describing these peculiar primary affections as of common occurrence. The indurated ulcer presents for the most part as a solitary sore ; and although it may select as its site any position on the male or female organs of generation, it is most frequently found on the orifice of the prepuce, or the corona glandis of the male ; and in the female on the external labia, at the junction of the skin and mucous membrane. The urethra of the male may likewise be the seat of the indurated ulcer, thus constituting that form of disease known as the *concealed urethral chancre*. These sores may be detected by a circumscribed hardness and morbid tenderness in some portion of the canal ; and as they often are situated on the internal lips of the meatus, the diagnosis may be perfected by everting the orifice of the urethra, when they will immediately be brought into view. In consequence of the depth, however, to which they occasionally proceed behind the glans, this diagnostic mark will not always be

available. From the general indolent nature of these ulcers, from the constitutional affections to which they give rise, and from the speedy manner in which they yield to the appropriate remedy adopted for the cure of the indurated ulcer in other situations, they may, I conceive, as a general rule, be said to partake of the characters peculiar to the ulcer under consideration.

Before entering upon the treatment of the indurated ulcer, it will be necessary to recall to the recollection of the reader the two stages into which syphilitic ulcers are naturally divisible ; the first or primitive stage being that of ulceration, the second or consecutive stage constituting that of reparation or cicatrization. The practical bearing of these points will be more especially apparent in this class of primary sore, when speaking of the choice of topical applications, and the precise period at which their use will be demanded. It will also serve to guide us in the selection of a certain description of constitutional remedies, which the management of this ulcer will imperatively demand. The therapeutical appliances, therefore, resolve themselves into local and constitutional.

Treatment.—(a) *Local applications.* Having previously observed that the danger of constitutional infection is proportioned to the duration of the local disease, it must be self-evident that in order to anticipate, as it were, the natural process of absorption, and thus prevent the diffusion of the poi-

son through the system, it will be incumbent upon us to destroy or neutralize the concentrated virus, and thereby set up a barrier to its ulterior effects. This result is effected by means of escharotics, the most favourite of which is the solid nitrate of silver. The preparation, however, which I prefer, and to which I have so frequently alluded, is the acid nitrate of mercury. As an application, it is manageable and powerful; its action is easily localized; and it requires less repetition in bringing into view a clean vascular surface than the nitrate of silver. Other practitioners make choice of those escharotics with the effects of which long association and habit have made them familiar. "If we destroy chancres at an early period; if we make them abort in the first moments of their existence, from the first to the fourth or fifth day of their appearance; most undoubtedly we prevent these (secondary) accidents. If we do not see them in time, and consequently cannot successfully count on the abortive treatment, cauterization will, however, at least abridge the duration of the primary ulcer; and so important and efficacious are its effects, it should be laid down as a precept, that any erosion after exposure should be instantly cauterized. But to derive the full benefit of cauterization, as an abortive and preventive against all ulterior consequences, many conditions are necessary. In the first place, we are not to reckon the age of the chancre from the time when its existence was

first perceived by the patient, but from the moment of exposure to contagion. In acting thus, and destroying the chancre before the fifth day, the patient escapes from consecutive symptoms. That we may rely upon cauterization as abortive, we must not be content with merely touching the ulceration with any description of caustic ; but it is necessary that we should find, on the separation of the eschar, in place of the virulent ulceration, a simple wound ; otherwise our cauterization is of no avail. It is owing to imperfect cauterization, or from its being practised at too late a period, that symptoms supervene which we have no right to impute to it. In fine, if buboes already exist ; if the chancre is indurated ; if the constitutional affection is established ; and, moreover, if secondary symptoms have already existed ; it can only serve to modify the primary sore, to hasten the period of reparation, to repress superabundant granulations, to hasten the cicatrization, and shorten the duration of the ulcer.* As a *general* rule, caustics or irritating dressings should not be applied to a primary ulcer, when there is much local inflammation or symptomatic fever present ; as a sloughing disposition may by this means be engendered in the parts, and a phagedenic action may be originated, even in a simple sore, by injudicious and untimely interference. But the ulcer of which I am speaking being

* Ricord's Letters, by Stapleton, pp. 38-9.

for the most part unattended with inflammatory symptoms, may when first seen be immediately cauterized ; and even should there coexist a slight excess of inflammation, it is much more advisable to endeavour to destroy the virus by means of escharotics, and depend upon the subsequent dressings to reduce the inflammation, than to lose time in preparing the patient by the usual antiphlogistic measures, and thereby run the risk of general contamination. A simple poultice will be found the best and most suitable application after the use of the caustic. While it tends to subdue inflammatory action, it will materially assist in expediting the separation of the eschar. This latter object having been once attained, its employment may be dispensed with. Recourse must now be had to cooling or astringent applications. Those most in use are the liquor plumbi diaacetat. dilut. weak solutions of nitrate of silver, or sulphate of copper. M. Ricord gives the preference, as a dressing, to the aromatic wine of the French Codex, which is made by digesting four ounces of aromatic herbs (rosemary, rue, &c.) in two pints of red wine for eight days. When the secretion from the surface of the sore is very profuse, two scruples of pure tannin are added to eight ounces of the wine ; and where much local irritability is present, half a drachm of the purified extract of opium may be dissolved in the vinous vehicle. With these applications the patient gently washes the ulcerations, and the solu-

tion is afterwards applied to the surface of the sore by means of a piece of soft lint. At a later stage, the black or yellow wash, while it increases sensibility, and promotes ulceration in the other varieties of primary ulcers already described, seems to act very beneficially in this form of sore ; as under its use the edges lose their hardened and raised appearance, the surface becomes more solid, healthy granulations spring up, and cicatrization is steadily effected. During the employment of these topical remedies, strict quietude must be enjoined ; and rest in the recumbent position, when it can be attained, will be particularly desirable. The selection of greasy applications, or mercurial or other ointments, should be abstained from, as their use is rarely attended with any decided advantage, and they serve to disguise the true condition of the ulcer. While the foregoing local measures are being adopted, the patient's diet should be restricted, indulgence in wine or malt liquors should be strictly prohibited, and the bowels should be kept open by mild aperients. Having now reduced the specific or poisonous sore to the condition of a simple ulcer, by the employment of escharotics and the local applications alluded to, and all symptoms of irritability and inflammation having disappeared, we must next proceed to the administration of those remedies upon which, for the cure of the indurated chancre properly so called, our main reliance must be placed. These will constitute :—

(b) *Constitutional remedies*.—Although it is now clearly ascertained that even this specific ulcer is amenable to simple treatment, and will slowly cicatrize under ordinary topical applications ; yet from the frequency, nay the almost certainty of general contamination, in cases where mercury has not been employed, few practitioners will, I conceive, at the present day be found willing to dispense with a therapeutic agent, which, if not a specific, exercises at least a powerful salutary control over this form of disease. Indeed so strong is the prejudice in favour of mercury in the treatment of the indurated sore, that it is now generally conceded that the surgeon who undertakes its cure without the aid of this mineral, is responsible for the constitutional symptoms which his ignorance or temerity have in all probability induced. It must not, however, be construed from these remarks, that mercury, when administered with a view to the cure of the indurated ulcer, will in every instance prevent the accession of constitutional symptoms ; for, in the first place, from the indolent and painless condition of the primary affection, the patient very frequently defers applying for advice until absorption has put it beyond the power of medicine to arrest the progress of the virus. But here the symptoms may be much modified ; the acrimony of the poison diluted ; and made more subservient to a subsequent line of treatment, by the judicious production of mercurial

action. Again, we are not in possession of sufficient or positive data, to affirm that even if mercury were given in the very earliest stage of the Hunterian chancre, it would act as a decided and *infallible* antidote to the poison ; but inferentially we are justified in asserting, from its beneficial effects both locally and generally, that the chances of a permanent cure, and consequent freedom from symptoms of constitutional taint, are vastly in favour of its early administration. It being now clearly understood that mercury is indispensable in the treatment of the indurated ulcer, the next question that arises is as to the safest and at the same time the most efficient preparation. But as in the case of the employment of local applications, so in the selection of the internal remedy, each practitioner is more or less wedded to a certain formula ; thus, blue pill, hydrargyrum cum cretâ, the protochloride, the bichloride, the iodide, and the biniodide, have severally their advocates. From much experience in its employment, I give the preference to the blue pill, which will always be found a safe and manageable preparation ; and in order to guard against an irritant action, which it occasionally produces in the bowels, it will be advisable to combine it with a sedative ; thus, five grains of blue pill and a quarter of a grain of opium will, as a general rule, answer every indication required.

It will sometimes happen that, from some pecu-

liarity of constitution, or, more properly speaking, idiosyncrasy, the alimentary canal will evince an obstinate repugnance to the internal exhibition of mercury ; and we are consequently driven to effect the action we desire by means of inunction. For this purpose, from half a draehm to a drachm of the strong mereurial ointment should be carefully and gently rubbed into the inner side of the thigh in the morning ; and, if not contraindicated by debility or feverish excitement, the patient himself should be the operator. The ointment should be washed off the limb some time previous to a second application ; and with a view to avoid undue irritation, it will be advisable to use the inunction alternately on either limb. When, from the reasons alluded to, the patient is not able to undergo the fatigue consequent upon self-inunction, it will be necessary to give directions to the attendant to protect his hand, by means of a soft kid glove or some other pliable material, during the continuance of the friction. By persevering in this course, we will find that ptyalism is fully effected about the sixth or seventh day ; the establishment of which is indicated by a train of symptoms so universally known, that their detailed description would be here superfluous. The healthy action of mercury on the indurated ulcer will be recognised by the following local indications. The excavated centre fills up, the surrounding hardness disappears, granulations arise, the discharge becomes healthy

and purulent, the surface assumes a vascular and clean appearance, the ulcer contracts in size, and finally cicatrization is accomplished. The average time that the primary sore occupies, in going through these different stages, is, according to observations I have made in the Lock Hospital, three weeks.

After the healing process has been perfected, it almost invariably happens that the *cicatrix* takes on an indurated and elevated character, evincing a disposition to ulcerate from trivial causes. This condition has been regarded as denoting the persistence of syphilitic action in the system, and as forming the precursor of symptoms of constitutional taint; hence has arisen the question as to the length of time the patient should be kept under the influence of mercury, after the cicatrization of the primary sore. Nearly all writers agree in stating that mercurialization should be persevered in as long as any induration remains. Now, as it is well known that this state may present for months, and in some cases has been observed after the lapse of years; and while I hold that it is an undoubtedly suspicious indication, it has nevertheless always seemed to me that those directions were extremely vague in form and unscientific in application. Out of the thirty cases to which I have adverted, induration disappeared in twelve cases after moderate salivation. In the

remaining eighteen, it persisted for an indefinite period after the effects of mercury had worn off; notwithstanding which, no symptoms of constitutional infection were observable, although many of this class of patients were detained in hospital longer than would have been deemed advisable under more favourable circumstances, anticipating such an occurrence. The rule to which I invariably adhere, in the treatment of those cases, is to produce ptyalism by the means already recommended; and when this effect has been accomplished, to reduce gradually the dose of mercury, so as to keep up a mild degree of salivation for a fortnight after cicatrization has been perfected. Should constitutional symptoms subsequently present, the patient will now be found much more amenable to the influence of the mineral, than if its action had been protracted beyond the period alluded to.

With a view to eradicate the lingering remnants of the poison, and thereby remove the cause of further constitutional mischief, it has been suggested to destroy, either through the medium of caustic or the knife, the persistent induration. That this is a line of procedure highly objectionable, I am fully persuaded; an intractable species of ulcer usually results upon the application of the caustic, and excision but removes the original sore, to be replaced by one of a less manageable description; which, upon healing, will in all probability

exhibit the same characteristic induration of its predecessor. Nor does this operation secure to the patient immunity from those symptoms for the prevention of which it was intended ; for, in many instances where the ulcer had been cleanly removed by the knife, or effectually destroyed by escharotics, indications of general contamination have, after a variable period, demonstrated the utter inutility of the process adopted. It may, likewise, be added, that all dressings or topical applications to the cicatrix are generally injurious, and often occasion much local irritation. The irritation consequent upon a concealed urethral chancre will sometimes give rise to local inflammatory symptoms, which at the onset may require to be combated by antiphlogistic measures ; but, from the indolent character which this ulcer usually assumes, these indications will not generally present. If the sore be within reach, its surface should be cauterized with a pencil of nitrate of silver, and a weak solution of the salt should subsequently be thrown into the canal, with a view to stimulate the sore and promote its healthy action. Mercury may now be administered so as to produce a mild degree of ptyalism, after which its salutary local influence will usually be apparent in the cicatrization and final disappearance of the urethral ulcer. It will be here necessary, however, to put the reader on his guard respecting the production of too rapid or sudden salivation, as it occasionally occurs that, instead of the reparative pro-

cess being effected, the sore takes on a phagedenic disposition, and a considerable portion of the urethra may be destroyed. The effect of this mineral must, therefore, be cautiously watched ; and upon the supervention of any untoward symptom, its further use should be relinquished immediately.

Having now dwelt at some length upon the indurated ulcer, and having detailed the line of treatment, local and constitutional, best calculated for its cure ; it may be requisite, before proceeding to the description of the constitutional affections which most commonly result upon it, and with a view to obviate any misconception on the part of the reader, to remind him of the characters which will enable him to pronounce definitively upon this form of primary sore ; and which must guide him in the selection of the remedies best calculated to promote the patient's permanent recovery. In doing so, I feel assured that I cannot more clearly convey my meaning than in the words of Mr. Carmichael:—" But, in deciding upon the character of the primary ulcer, let both the surgeon and his assistant agree that it possesses that hardness, which Hunter so appropriately compares 'to a piece of cartilage under the skin ;' and if it does not possess this degree of induration, let it not be reported as true chancre ; for, by not attending to this definition of Hunter, scarcely two surgeons are agreed with respect to the characters of this primary ulcer ; and I am certain that the late Mr. Hennen was in

error, when he asserted that by irritating any sore, venereal or not, he could occasion this characteristic hardness ; for though by irritation we may cause a fulness, and even some degree of induration, yet I assert that nothing but the influence of the morbid poison from which chancre originates, can occasion that characteristic hardness described by the discriminating and accurate Hunter.”*

1. *Excavated ulcer of the tonsil*.—This constitutional affection, in common with other secondary forms of disease resulting upon the indurated ulcer, is insidious in its advent ; it is not preceded by febrile indications, or accompanied during the first few days of its formation by any degree of pain or uneasiness. In its progress it is slow and indolent, partaking in this respect of the characters of the primary affection upon which it is usually consequent. It is graphically described by Hunter “as a fair loss of substance, part being dug out as it were from the body of the tonsil. It has a determinate edge and is commonly very foul, having a thick whitish matter like a slough adhering to it, and not admitting of being washed away.” This species of ulcer may present previously, but more commonly makes its appearance subsequent to the cicatrization of the primary sore. Upon examination, one or both tonsils are generally found swollen and inflamed ; and an ulcer, corresponding in de-

* Clinical Lectures, p. 187.

scription to that just detailed, is usually situated between the pillars of the fauces. Occasionally, but rarely, it selects as its site the uvula, or posterior part of the pharynx. Although, during the earlier stages of its existence, the patient is free from any pain or uneasiness; yet, when fully developed, considerable difficulty is experienced in swallowing, and an abnormal sense of dryness is referred to the throat, accompanied with shooting pains through the ear, and down the side of the neck.

(a) *Local Treatment*.—The direct application of the acid nitrate of mercury will be found the most efficacious topical remedy; by its occasional use the ash-coloured slough is removed, and a clean surface is brought into view. Deglutition, after its employment, will likewise be performed with much greater ease, and unpleasant local sensations will to a great extent be relieved. In the interval which may elapse between each application of the caustic, the patient should be directed to make use of the muriatic acid, as the best detergent gargle. In conjunction with the above line of treatment, it will be absolutely requisite, with a view to a speedy and permanent cure, to resort to,

(b) *Constitutional remedies*.—As in the management of the indurated primary ulcer, so in dealing with the excavated ulcer of the tonsil, a full course of mercury should be prescribed. If the primary and secondary form of the disease co-exist, I give

the preference to the iodide of mercury in combination with conium. A grain of the former and four grains of the latter may be administered in the form of a pill, twice or three times daily ; but when the original ulcer has healed, and no traces of its existence are discoverable, the ordinary blue pill will be found to answer every indication required. When the system has been fairly brought under the influence of mercury, its salutary effects will at once be perceptible in the healthy aspect of the ulcer, the speedy filling up of the cavity, and in its final cicatrization.

2. *Enlargement of the cervical glands.*—Although this symptom is not exclusively restricted to the sequelæ of the indurated ulcer, I have nevertheless observed it so frequently as the result of this form of primary infection, that I think it may justly be classified as one of its ordinary consecutive results. It will occasionally, however, present as a sequence in the other varieties already described. These secondary buboes sometimes exhibit themselves as an isolated symptom at an early period of constitutional infection ; but more frequently there will be added other indications of a syphilitic taint. They are seldom observable after the system has been fully saturated with the poison, and need not therefore be sought for in an individual the subject of repeated attacks of constitutional syphilis. The ganglions most commonly engaged are those situated at the posterior

part of the neck, and on either side of the occipital bone ; the mastoidean glands are likewise not unfrequently affected, and although they may increase to a large size, they have rarely been observed to suppurate.

Treatment.—If these enlargements of the lymphatic glands show themselves as a solitary symptom, the iodide of potassium, with the external application of the tincture of iodine, will be found the most efficacious remedy ; but should the indurated primary ulcer co-exist, (as in the majority of instances will be the case) mercury must be resorted to, with a view to the prevention of other and graver symptoms.

3. *The scaly eruption.*—This cutaneous affection, the true syphilitic eruption, makes its appearance unpreceded by the ordinary precursors indicative of constitutional disturbance ; it is slow in its formation, indolent and chronic in its progress, and usually succeeds to a general efflorescence of the cuticular surface. It is most apparent and best delineated on the forehead, chest, posterior part of the neck, and groins, and is occasionally met with on the palms of the hands and soles of the feet ; in which last-named situations, on account of the separation of the cuticle, its diagnostic characters are with difficulty recognised. Its incipient stage is denoted by a small, hard, reddish protuberance, which gradually extends in circumference ; their margins are rather elevated above the centre,

which is flat, and covered with thin white scales. The patches are isolated, and of a copper-coloured appearance, ranging in size from that of a sixpence to half a crown ; which latter dimension, except in neglected cases, they rarely exceed. When the scales fall off, a process which takes place slowly and gradually, they are replaced by a circular red spot ; which, on healing, leaves behind a slight depression corresponding to its former site. If the disease be permitted to go on uncontrolled, a succession of scales will form, each layer becoming thicker than the preceding. An agglutinated aspect will be presented, and upon this becoming detached, an ulcerated surface will eventually be disclosed. In order to determine the precise nature of this eruption, it must be seen at an early stage of its formation ; and while it may be needless to remind the practical surgeon that all syphilitic eruptions, when fading, exhibit a scaly appearance, it is much to be feared that many of those constitutional affections have been confounded, for want of sufficient scrutiny and precision on the part of the medical attendant. And indeed when we find writers, even at the present day, describing this as a form of disease frequently encountered, the extreme rarity of which cannot fail to strike the observant hospital surgeon, I cannot refrain from thinking, with Mr. Carmichael, that owing solely to inattention to this leading feature, many have been induced to deny that

there existed any line of demarcation, or specific distinction, between this and other varieties involving the cuticular surface.*

Treatment.—As this form of eruption is neither preceded by, nor accompanied with any constitutional disturbance, a preparatory anti-phlogistic line of treatment is not required; we can, therefore, at once commence the administration of those remedial agents which the nature of the symptoms emphatically demands. Mercury will be found to act most beneficially in this species of disease. Upon the supervention of ptyalism, the scales quickly fall off, and the skin assumes its original healthy condition; the depressions to which I have already alluded being the only vestiges to denote the position of the original scaly patches. The iodide of mercury exerts, as far as my experience extends, a more permanent salutary influence over this form of eruption than any other preparation with which I am acquainted; and when salivation has been effected, the warm or vapour bath will prove a valuable adjunct in promoting the healthy action of the skin, and in removing the scales, which at this stage are usually

* “And here I must agree with Mr. Carmichael, in his belief that indurated sores will be followed generally by a peculiar form of secondary symptoms. These eruptions are usually found to be scaly, and attended with sequelæ which seem to have a strict relation to induration. I believe to that gentleman we must give the credit of having called public attention to this view of the subject, which subsequent experience has confirmed.”—*Acton on Indurated Chancre*, 2nd edit., p. 427 (foot-note).

loose and detached. When, from irritability of the intestinal canal, or idiosyncrasy on the part of the patient, the internal exhibition of mercury is contra-indicated, much benefit will result from the employment of the mercurial vapour bath, as recommended by Mr. Parker; to whose treatise I would refer the reader for directions as to the ingredients and mode of using the various preparations therein detailed.* In mismanaged or neglected cases, where the disease proceeds to ulceration, the iodide of potassium will be found a most efficient and valuable therapeutic agent. In these instances, mercury, if pushed, will frequently excite inflammatory action in the part, and dispose the ulcers to take on a phagedenic spreading character; on which account its use should never be resorted to, until the desquamating stage arrives.

4. *Pains in the head and shafts of the bones.*—While, in the other varieties of which I have spoken, the joints are principally engaged, as a sequence of the indurated ulcer, the shafts of the bones are almost invariably involved. This affection has been pronounced by some writers to owe its origin to the previous use of mercury; but having frequently encountered it as the result of the indurated sore, in patients who had never been subjected to the action of that mineral, I feel

* On Secondary Syphilis, London, 1850.

assured that it succeeds in natural order to this form of primary infection.

Treatment.—The iodide of potassium will here exercise a most beneficial action ; the same remedy will be applicable in all cases where the deeper seated fibrous tissues are attacked. The occasional use of the vapour or warm bath will tend to alleviate the nocturnal exacerbations, and expedite the process to convalescence.

5. *Nodes.*—These enlargements, resulting upon this form of disease, are usually of a much more solid and unyielding nature than those supervening on the phagedenic primary ulcer ; they are likewise more indolent, less painful, and do not evince the same tendency to suppuration. They will for the most part yield to the iodide of potassium, the external application of the tincture of iodine, blistering, opium, and warm baths. Should they, however, as occasionally will happen, resist these therapeutical appliances, the iodide of mercury will in all probability accomplish a cure.

Primary syphilitic ulcers in the female assume all the distinctive features which characterize the same class of affections in the male ; they will be found best marked and most frequently situated on the external labia, at the junction of the skin with the mucous membrane. Occasionally they will be observed to occupy the vagina at various depths ; in which case their existence may easily be demonstrated by means of the speculum. As I before

remarked, they will very rarely be detected on the mouth or neck of the womb. They are amenable to the same form of local and constitutional treatment as when they present on the male organs of generation; but when mercury is required for their cure, its action is much more rapidly displayed on the constitution than is usually observed in the opposite sex. The following cases will illustrate some of the symptoms previously detailed. The first is interesting in exhibiting the primary and secondary disease at the same time, and evincing the salutary influence of mercury over these particular affections.

*Case 1. Indurated ulcers; inoculation: result negative.**—A. B., aged seventeen, of temperate habits, admitted into the Lock Hospital, December 4th, 1844. States that twelve months since she contracted gonorrhœa, which disappeared in six weeks under treatment; from that time to the present she has continued free from any disease. On examination, two ulcers of a circular form, excavated in the centre, with well-marked, indurated base and margins, are perceptible on the external labia, at the junction of the skin with the mucous membrane. A tenacious matter intimately adheres to their surfaces. The ulcers, she says, first made their appearance about a month ago, and that she never suffered the least pain or uneasiness from

* This was the only case of indurated ulcer in which inoculation was unsuccessful.

them. During that period they have been very gradually increasing in size, and previous to admission she took six pills, but without perceiving any effect. About a fortnight since, an eruption of a bright copper-colour, unpreceded by any degree of fever, showed itself first on the forehead, then on the back of the neck, and subsequently engaged the greater part of the body. It agrees in every particular with the scaly form of the disease, and she states that it has not altered the characters which it originally assumed. Shortly after, she experienced for the first time a sense of soreness in the throat, which has been gradually increasing, and which at present causes much pain in swallowing. Upon inspection, the tonsils appear larger than natural; and at the posterior part of that on the right side, an excavated ulcer is perceptible, to which a quantity of mucus intimately adheres, and which cannot be wiped away by lint wrapped around a probe. Inoculated the upper part of the thigh with matter taken from the primary ulcers, which were afterwards freely touched with nitrate of silver. Ordered one grain of the iodide of mercury with four of the extract of conium in pill three times a day.

December 27th.—The cavities in the ulcers have slightly filled, and they have assumed a healthy appearance; induration still remains. Swallows with much greater ease. Touched the tonsilitic ulcer with the acid nitrate of mercury.

31st.—Chancres very much contracted in size, and have filled up considerably ; the induration has to a great extent left their margins ; throat much improved ; and can swallow without any difficulty. No perceptible alteration in the colour of the eruption, but no new spots have presented for the last few days.

January 3rd.—Gums tender, with mercurial fœtor ; induration fast leaving the ulcers, the centres of which are now on a level with the circumference ; eruption fading ; throat almost healed.

Repetat pil. ii. quaque nocte.

10th.—Chancres completely healed ; no induration remaining ; eruption, with the exception of one or two small spots, has entirely faded ; tonsils of their natural size, and the ulcer which formerly occupied the posterior part of the right one is no longer perceptible.

Omit. Pil. ; Garg. Alum.

27th.—Discharged cured.

Case 2. Indurated ulcer ; Inoculation, with positive result.—S—— T——, aged nineteen, of healthy appearance, but intemperate habits, admitted February 4th, 1845. Three years ago contracted gonorrhœa, which was followed by buboes, for the treatment of which she was admitted into one of the general hospitals, and was discharged cured in two months. Eight months ago contracted the disease again, which disappeared in a few weeks,

without having recourse to any particular line of treatment. Having been since constantly in the way of infection, she cannot say with certainty when the present disease originated. An excavated ulcer about the size of a split pea, with indurated margins and base, is perceptible on the inner surface of the right labia, near the junction of the mucous membrane with the skin; a profuse vaginal discharge is also present. Inoculated the upper part of the thigh with matter taken from the ulcer, which was afterwards freely touched with nitrate of silver. Pil. Hydrarg. Iodid. i., ter in die.

February 8th. The characteristic pustules have made their appearance on the part inoculated, to which the caustic was freely applied. The primary sore has assumed a healthier aspect.

16th. Gums tender, with mercurial fœtor; the centre of the sore is now nearly on a level with the edges, which have lost to a great extent their induration.

Repetant. Pil. ij. quaque nocte.

19th. The ulcer has filled in considerably, and very little induration is perceptible in the margins; ptyalism fully established. Omit. Pil.; Garg. alum.

24th. Ulcer completely healed; a very slight degree of induration remaining; complains of pains in the arms and thighs; ordered a tepid bath.

March 10th. Discharged cured, all induration having disappeared.

Concluding Observations.—Having now described

in order the four classes of primary ulcers, whose characters are sufficiently distinct to admit of a separate classification ; and having likewise enumerated the constitutional affections which most frequently result upon them ; I would again remind the reader of what I before stated, that he must not expect to meet in every instance, as a sequence of each variety of primary ulcer, a peculiar and *undeviating* train of constitutional symptoms. In the course of his experience cases will present themselves, where, in the same individual, two or more varieties of eruption will be observable. But if he have closely and carefully watched the distinctive traits of the primary sore, he will at once perceive that the leading characters of the consecutive disease are, for the purposes of diagnosis, sufficiently apparent. But while, as regards the cutaneous affections, the uniformity of the symptoms may seem interrupted by the interspersion of a few spots of eruption, that cannot be traced back to the primitive source of the disease, there are cases in which those exceptions are of rare occurrence. Thus, for example, I have invariably observed, as the result of the indurated ulcer, the class of complaints which I have detailed in the chapter appropriated to their consideration ; and these effects may, according to my experience, be looked for with certainty as the sequelæ of the Hunterian chancre. When iritis occurs, it will almost exclusively succeed to the superficial primary ulcer ;

and will, should any form of eruption present, be associated with the papular. Diseases of the osseous system, or those formidable secondary ulcerations enumerated as succeeding to the primary phagedenic sore, will never be met with as the consequence of this mild form of primary ulcer. Although I have given the constitutional affections in the order which I have most usually observed them, it will occasionally happen that this precise succession will not always obtain ; thus, the eruption may present previous to the affections of the throat ; and those pains resembling rheumatism, together with inflammation, and subsequent effusion into the joints, may occur previous to either. This deviation from the natural order may be viewed as the exception and not the rule. Diseases of the covering of the bones, and nodes forming the tertiary symptoms of M. Ricord, will never appear until a late period of general contamination. It may here also be requisite to make a few remarks, respecting the line of treatment prescribed for the various affections alluded to ; in which it will be perceived that the characters of the primary or constitutional affections formed in themselves the sole guide to the management of the various maladies spoken of. It will thus be observed, that while a judicious, and, I may add, a scientific line of treatment has been prescribed, according to the requirements of the existing symptoms, neither a mercurial nor a non-mercurial

course has been advocated ; the merits of mercury being amply recognised where the class of symptoms demanded, and its employment being dispensed with where a safer and more simple plan of treatment was obviously indicated. Once more, in order to guard against misapprehension, it will be essential to remark that, under the most careful and well disciplined proceeding, relapses will at variable periods recur ; but a well-directed treatment at the onset of the primary affection, and a judicious management of the early constitutional disorders, will ensure a mildness of symptoms and a facility of cure, which ill-timed measures and the indiscriminate administration of mercury will invariably exasperate. In this way, it will frequently happen that cases which would in the first instance have been amenable to mild therapeutic appliances, will from previous injudicious treatment present complications, which will subsequently bid defiance to the best directed efforts on the part of the surgeon. The arrangement to which I have adhered, in describing the primary and constitutional forms of syphilis, I have found by experience calculated to impress the mind with clear and methodical views of these diseases ; and, above all, to ensure a scientific and successful mode of treatment ; and this remark will equally apply, whether we ascribe the varieties in the symptoms detailed to one or a plurality of poisons. That all the constitutional forms of syphilitic affections, if left to

the unaided powers of nature, have a constant tendency to wear themselves out, I am fully convinced. The abundant evidence with which we have been supplied by the non-mercurial school, while it has succeeded in clearing up all doubt upon that once disputed point, has at the same time taught us, by induction, the proper estimate in which we should hold the long-vaunted specific. Firmly satisfied with the truth of this well ascertained fact, I was not a little surprised at finding a contrary doctrine propounded in the most recent work on these affections, viz. ; that when the syphilitic poison was once received into the blood, it remained in the constitution to the *end of life*; incapable of eradication in the person of the original recipient, it was perpetuated in the form of scrofula to distant generations.* Looking upon this position as altogether untenable, and entirely at variance with recorded experience, it will be quite unnecessary to dwell longer upon it. I shall now proceed to the description of those affections which may be said to be common to all the foregoing classes.

* Wilson on Syphilis, London, 1852.

CHAPTER XIV.

UNCLASSIFIED CONSTITUTIONAL AFFECTIONS.

Tubercular Eruption.—When enumerating the various forms of eruption which usually succeed to certain descriptions of primary ulcers, I studiously avoided ranking tubercles of the skin under any of the classes whose characters I detailed. Mr. Carmichael, while he does not particularly allude to this affection, would nevertheless seem to imply that it presents as one of the usual sequences of the primary phagedenic ulcer ; and as regards the *more general frequency* of its occurrence in this affection, the accuracy of the observation has been fully borne out in my experience. I do not, however, from the deviations I have noted from that rule, feel warranted in describing it as one of the exclusive sequelæ, of that particular form of primary sore ; and have therefore deemed it more advisable to appropriate a separate chapter to its consideration. Tubercles of the skin are deep-seated, solid and distinct elevations, containing neither lymph nor pus. They are more prominent, and engage a much larger ex-

tent of surface than papulæ; and have their seat in some structure below the surface of the cutis, probably in the sebaceous glands. They vary in colour, sometimes assuming a brown or purple appearance; but, according to my observation, on their first accession they almost invariably exhibit a copper-coloured aspect. They may either present in groups or exist separately, and are usually either round or crescentic in form. Their progress is slow and indolent; and, after continuing in this state for some time, they terminate for the most part in softening and ulceration. When this result takes place, foul excavated ulcers, closely resembling rupial spots, are exposed to view; which, upon healing, leave behind them cicatrices, the centres of which are more or less depressed. Tubercles of the skin are frequently met with in the fore part of the chest, the surface of the abdomen, and back of the neck; in which situations they are usually conical, or present a more or less rounded form. They also engage the alæ or lobule of the nose. M. Ricord has discovered them on the tongue, and on the neck of the womb, where they often simulate carcinomatous indurations; and he has most commonly remarked them in persons of a scrofulous or scorbutic tendency. I have not unfrequently encountered them in isolated groups, about the size of a pea, upon the face; where they exhibit to a remarkable degree their characteristic induration, attended by an erythematous redness of the whole surface, and are most difficult of cure.

Treatment.—As this affection is for the most part associated with a general unhealthy condition of the system, it will be desirable, previous to the employment of any specific treatment, to apply ourselves to the disordered state of the constitution. When this is to a certain extent re-established, the cure of the disease by special remedies should at once be commenced. Tubercles of the skin at the onset are usually accompanied with much surrounding local inflammation ; in which case evaporating cooling lotions may be applied with much advantage to the surfaces which they engage. If much irritation be present, fomentations, poultices, and aqueous solutions of opium will be found most useful. Contrary to the experience of M. Biett, I have found that when these tubercles are in a state of induration, their further progress may be arrested by the judicious employment of mercury. The preparation to which in this disease I give the preference, is the iodide in combination with conium. The arseniate of soda is a formula highly spoken of, and has been for some time employed with much success in the wards of the hospital at St. Louis. Some practitioners recommend the alternate use of mercury and iodine in a separate form ; from which peculiar mode of practice desirable results are said to have accrued. I have found it, however, more beneficial, when ptyalism has been effected, to follow up the mercurial treatment by the administration of the iodide of potassium. In these instances,

the mercurial vapour bath will be found a valuable adjuvant. When mercury and iodine, either separately or conjointly, have failed, I have succeeded in bringing about a cure by the use of Donovan's solution, (*Liquor Hydriod. Arsenic. et Hydrarg.*) commenced when the effects of the other remedies had worn off. Cases of indurated tubercle will occasionally be met with, more particularly where the face is alone the seat of disease, which will bid defiance to every form of treatment which ingenuity can devise. These patients, while under the influence of either mercury or iodine, will appear to improve, and the attendant is therefore led to give a favourable prognosis ; but when the action of the remedies has worn off, all the former symptoms will return, with increase of inflammation and superadded induration ; in which state the disease will remain obstinate and rebellious, being only temporarily influenced by any line of treatment that may be adopted. Wearied with repeated relapses, the subjects of this affection will wander from one surgeon to another, till at length they lose faith in medicine, and commit their deformity to the slow operation of time. Under these unpromising circumstances, a well-regulated form of dietary, together with residence at the sea-side and frequent bathing, has been known to succeed where medicine had previously proved inoperative.

In the ulcerated varieties of tubercle, the iodide of potassium is decidedly the remedy upon which

most reliance should be placed. Mercury, when given in this form of the disease, is highly injurious, causing increased local inflammation, and often engendering a phagedenic disposition in the sores. When the edges of the ulcers assume a raised and elevated character, they should be touched with the acid nitrate of mercury ; which may likewise, in certain cases, be used with much advantage to the surfaces themselves.

When speaking of the consequences of gonorrhœa in the female, I alluded to the flat mucous tubercle, which, in this class of patients, is frequently met with as the result of the vaginal discharge. Co-etaneously with one or other of the eruptive forms of the disease already described, we occasionally observe flat, raised tubercles, of nearly a similar kind ; but presenting in some instances a bright red colour, ranging in size from that of a fourpenny piece to a shilling. These are usually found in the neighbourhood of the anus, on the scrotum ; and in the axilla ; their growth being favoured by the moisture of those respective regions. In these localities, the distinctive traits of the peculiar form of eruption are no longer recognizable, and the cutaneous affection exhibits itself in the aspect of the elevated and flattened tubercles so constantly observed. In the management of these affections, we must be guided by the general constitutional symptoms that may happen to co-exist ; but much more advantage may be expected from local appli-

cations, such as those previously enumerated, than from any particular line of constitutional treatment. The following case will serve to illustrate the inveterate and obstinate nature of deep-seated indurated tubercles, when they engage the face.

Case.—M. F. aged thirty, of intemperate habits, admitted under my care into the Lock Hospital, on the 12th of December, 1843. Her face presents a vivid, swollen, red appearance, and is studded with minute, slightly raised, indurated tubercles, each being about the size of a split pea. Both the efflorescence and the tubercles are best marked on the cheeks; the forehead and inferior part of the face are only partially affected, the disease in those situations presenting in copper-coloured patches. She is at present free from any other indication of venereal taint. Having been constantly exposed to infection, and her habits being intemperate, she is unable to afford any accurate account of the primary ulcer; but states that about two months since she observed a sore on the internal surface of the external labia, which caused her no uneasiness, and which healed up in a few days, on the application of a wash obtained at an apothecary's. Without going through the daily reports of the case, it will be sufficient to state that evaporating lotions were applied to the surface of the face, and that, after the free administration of cooling purgatives, she was put on the use of mercury; the preparation selected being the

iodide. After the usual period, ptyalism was effected, upon the supervention of which her face gradually regained its original colour, the tuberculated spots disappeared, and she continued rapidly to improve during the continuance of the action of the remedy, which was moderately kept up by means of reduced doses for three weeks. All symptoms of the disease having now been apparently removed, the mercury was discontinued, and, through the medium of astringent gargles, further salivation was arrested. When recovering from the effects of mercury, the copper-coloured appearance of the face began gradually to return; the tubercles reappeared with an increased degree of induration; and, in a week subsequent to the cessation of ptyalism, she was, if possible, in a worse condition than previous to the adoption of any therapeutic measures. A lotion of chloride of lime was now applied to the face, and the internal administration of the iodide of potassium was prescribed; and while under the influence of this remedy, the disease seemed to receive a check, and the bright hue of the face was slightly subdued. After persevering in this course for upwards of a month, the further use of the iodide was relinquished, and Donovan's solution, in doses of a scruple three times a day, was substituted in its stead. The stomach not having evinced any repugnance to the arsenic, I was enabled to persevere with this remedy for nearly three weeks, when

gentle ptyalism supervened, during the continuance of which all remnants of the disease vanished; but, as in former instances, returned when the effects of the medicine ceased to operate. After the fruitless exhibition of a variety of medicinal agents, local and constitutional, and being impatient of further confinement, she was discharged on the 15th of April, about four months from the date of her admission. On the 6th of June she was re-admitted, but not under my care: and she was now submitted to every form of treatment which the lengthened experience of my colleague deemed advisable, but with only a like temporary benefit. Her stay in hospital on this occasion was about two months. She again came under my care on the 10th of September: her application for admission into the hospital was in consequence of a gonorrhœal discharge contracted at an annual neighbouring fair, on the 26th of the preceding month. Her face presented the same aspect as when last in the institution; and while treating her for the discharge, I again brought into requisition mercury, iodine, arsenic, and other constitutional remedies, together with a variety of topical applications and medicated baths; each producing salutary effects for the time, but none resulting in any permanent advantage. She was discharged on the 15th of November, cured of the complaint for which she was last admitted, but with no final amelioration in the facial symptoms.

This was the last occasion upon which I had an opportunity of seeing this patient ; but I have always regarded her case as one over which medicine could exert no enduring control. Still, however, I am of opinion that even this inveterate species of disease will eventually wear itself out, and yield to the modifying influence of time. The tubercles, in the foregoing case, never showed the slightest disposition to suppurate at any period of their protracted existence.

Caries and exfoliation of the nasal bones may be met with as sequelæ of any form of primary sore, but have been more commonly observed to result upon the phagedenic primary ulcer. This affection is preceded by a discharge of a yellow matter, mixed with blood, which flows from the nostrils, and is accompanied with obstructed nasal respiration ; after which, exfoliation of the bones and sinking in of the cartilage produce visible deformity. In these cases, the turbinated bones and septum are not unfrequently ulcerated, and the pituitary membrane is usually thickened and inflamed. I feel fully assured, from very extensive observation, that this formidable disease never results upon the pure absorption of the syphilitic virus, but is produced by the injudicious and repeated use of mercury ; as in every instance in which I noted this symptom, the victims of the malady had had their systems previously saturated with frequent mercurial courses.

Treatment.—Frequent syringing with tepid water will have the effect of cleansing the nares, and a weak solution of nitrate of silver may be injected with advantage into the nostrils. The internal administration of the iodide of potassium, together with a nutritious form of diet, should at the same time be prescribed. I have never seen any permanent good effects succeed to the use of mercury, when given either internally, or employed locally in fumigation. In these deplorable cases, change of air, in conjunction with a tonic line of treatment, should form considerations of primary import.

CHAPTER XV.

AFFECTIONS COMMON TO ALL CLASSES.

1. *Muddiness of the Skin.* This discolouration, which in many cases precedes the outbreak of one of the forms of eruption already described, is for the most part accompanied with symptoms of languor and depression, without any well-marked indications of vascular excitement. The patient will complain of heaviness and dullness of spirits, with a sense of weight in the cerebellum. The conjunctiva will occasionally be slightly injected, and a peculiar expression of anxiety will be portrayed in the countenance. Upon examination, the cuticular surface, more particularly that of the abdomen and thighs, will present a dirty sallow dry appearance. After continuing in this state for some days, the discolouration gradually becomes less, and this condition may either be replaced by a marbling of the surface, or more commonly some of the syphilitic eruptions will at once exhibit themselves. In cachectic habits, this muddy aspect may continue for an indefinite period, and even persist after the subsidence of other symptoms.

Treatment.—Rest in the recumbent posture, the administration of diaphoretics, and the occasional use of the warm bath, will seldom fail in eliminating the eruption of which this appearance is usually the precursor. On its presenting, it must be treated in accordance with the directions previously enjoined, in strict relation to its characteristic peculiarities.

2. *Alopecia.*—The falling off of the hair, although commonly supposed to occur only in individuals, the subjects of repeated attacks of constitutional syphilis, is nevertheless a symptom which may be looked for at an early period of infection, and is often the first indication to denote the existence of constitutional taint. More frequently, however, it will succeed to a pustular eruption on the scalp. Mr. Carmichael has observed, and my experience fully corroborates the accuracy of the remark, that this symptom is seldom met with as the result of the superficial primary ulcer. I have noted it as a much more common sequence of the indurated and phagedenic sores, than of any of the other varieties. It will generally be found to be preceded by exfoliation of the epidermis, consequent upon a diminution in the nutritive powers of the skin. When total baldness supervenes, the hair is seldom reproduced by the employment of either local or constitutional measures.

Treatment.—As the occurrence of this affection indicates constitutional contamination, which may

be gleaned from the history of the case, or from the presence of other coetaneous symptoms, the treatment must be conducted with a view to the general restoration of the system. The production of mercurial action, should the disease result upon, or be associated with the indurated primary ulcer, or any of its constitutional sequences, will obviously be indicated; but where it appears as a solitary symptom, or succeeds to an eruption on the hairy portion of the head, the iodide of potassium, in five-grain doses three times a-day, will seldom fail in producing a beneficial effect. In conjunction with the foregoing, a topical line of treatment will prove a useful adjuvant. The head should be shaved, and rubbed with stimulating lotions, or ointments. The tincture of cantharides, diluted with alcohol, is an efficacious and favourite wash. Where, as will often happen, the patient objects to the shaving of the head, Mr. Wilson recommends a pomatum consisting of one part of the nitric oxide of mercury ointment, to three of scented pomatum; to be rubbed into the roots of the hair at bed-time, and a proper degree of friction to be communicated to the scalp, by means of the constant use of the hair-brush. As an additional aid to the excitation of the skin, he likewise directs a wash composed of the oil of sweet almonds, a solution of ammonia, spirit of rosemary, and honey, to be introduced among the roots of the hair by means of a sponge, each morning before brushing.

These local applications will have the double effect of exciting the healthy action of the skin, and removing the scurf which usually forms on its surface ; and, in combination with constitutional remedies, will form the most efficient therapeutic appliances.

3. *Affections of the nails.*—The matrices of the nails taking on an inflammatory action, and becoming the seat of the eruption, the nails themselves will show a tendency to fall off ; a condition analogous to the desquamation of the cuticle in eruptions. Sometimes, without peeling off, they become discoloured and brittle, in which case they are frequently accidentally detached. Ulcerations occasionally take place in and around the nail ; and I have met with many instances, where deep-seated purulent deposits formed as in other varieties of paronychia, requiring the free use of the knife.

Treatment.—The management of these affections will involve those constitutional remedies which the history of the case will at once suggest.

4. *Affections of the tongue.*—Fissures are not unfrequently met on the surface of the tongue in cases of long standing. They may take either a transverse or longitudinal direction, and are characterized by a considerable degree of induration, by which their margins are surrounded. These appearances are not consequent upon ulceration, but are produced by a species of interstitial absorption, by which the sides of the organ are drawn together,

and the mucous membrane thrown into folds, thereby forming deep grooves which are usually bounded by a superficial white blister. This latter peculiarity is considered by some as pathognomonic of the syphilitic action ; and will serve to distinguish them from other forms of irregularities, the result of irritation.

Ulcerations.—In addition to the foregoing affection, the tongue may likewise be the seat of ulceration, which may occupy the *central part of the base* ; in which situation it will be found to have penetrated rather deeply into the substance of the organ, and the surface of the ulcer will be coated with a dirty yellowish matter. This form of disease will sometimes be found coexistent with sloughing ulcers at the back of the pharynx, and is remarkable for its extreme sensitiveness. Ulceration of the dorsum of the tongue, *anterior to its base*, is sometimes met with ; the disease in this situation is of much larger extent than when any other portion of the organ is engaged, and the ulcer generally assumes a circular form. The *point* of the tongue may alone be affected, exhibiting a broad and swollen appearance, together with an ulcerated aspect, and attended with a considerable degree of induration. When the *margins* are involved in the disease, the same amount of induration is perceptible as when the point is attacked ; but the attendant tumefaction is not so considerable. There is still another state in which we

sometimes find the tongue, in patients who have suffered from the constitutional forms of the disease. This will exhibit itself in *circular, smooth, and rather elevated patches*; the surface, owing to the obliteration of the papillæ, is perfectly even, and presents a bright red appearance. These various affections of the tongue are usually accompanied with an increased, and occasionally an inordinate flow of saliva; and in some instances closely simulate ptyalism from the effects of mercury. They are associated with much pain and distress, more especially during the process of mastication; and from the induration which commonly attends upon them, they are liable to be confounded with carcinoma. The age of the patient, the absence of the lancinating pain and fœtid discharge peculiar to the malignant disease, in conjunction with the history of the case, will materially assist in forming a differential diagnosis.

Treatment.—In the management of those affections of the tongue, I have found no remedy so efficacious as the iodide of potassium, given in five-grain doses, three times a day. The ulcers, when they exist, should at the same time occasionally be touched with the acid nitrate of mercury, which will have the effect of expediting the cure. It will sometimes but rarely happen, that these lesions will resist the action of the iodide; in which case it will be advisable to have recourse to alterative doses of mercury, in order slightly to affect

the system. The action of the mineral, however, should be closely watched; and should the ulcers during its administration evince a tendency to spread, its further employment should be discontinued. These diseases, when apparently removed, are, even after the most judicious treatment, prone to re-appear at variable periods; until at length they seem, after repeated accessions, to wear themselves out, and finally yield to the innate powers of the constitution.

5. *Syphilitic testicle*.—This affection usually presents in conjunction with other constitutional forms of infection, and generally attacks but one testicle at a time. The disease is slow and indolent in its nature; the gland assumes a pear-shaped appearance, and becomes indurated, swollen, and heavy; both the epididymis and body of the testis are usually involved in one common swelling; the chord is unnaturally full; the integument covering the gland is smooth and seldom altered in colour, but upon close examination with the touch, an inequality will be detected over the diseased structure.

Treatment.—The application of five or six leeches every third or fourth day, along the chord, followed by warm fomentations, will in the earlier stages of the affection prove highly beneficial. In conjunction with local measures, the iodide of potassium will frequently succeed in reducing the swelling, and in restoring the testicle to its original normal condition. Should this remedy not produce the

desired effect, an alterative course of mercury may be resorted to with much advantage. Friction with hydriodate of potash or mercurial ointment, and the employment of compression as recommended in gonorrhœal epididymitis, will, in the more chronic forms, assist materially in expediting the cure.

6. *Bubo*.—Enlargement of the inguinal glands may either be *sympathetic* or *symptomatic*. In syphilitic affections, a bubo occurring during the progress of uncomplicated gonorrhœa, and caused by urethral irritation, may always be classified under the former head, and will be observed to possess certain diagnostic peculiarities. It disappears on the decline of the irritating cause, and suppuration seldom ensues upon tumefaction consequent upon such an origin. But when the inguinal enlargement results upon the absorption of the venereal poison, and has been preceded by one or other of the primary ulcers previously described, it may be included in the latter classification, and will demand a line of treatment very dissimilar to that indicated in the sympathetic variety. In the sympathetic form, the deep-seated glands, in the majority of the cases which came under my notice, were those usually engaged, and more than one gland was implicated in the distension ; while, in the symptomatic, the superficial ganglions only were involved, and the disease was restricted to a solitary gland. Both forms of affection are circumscribed in extent ;

the swelling in the sympathetic is, as might be expected from its deep situation, less prominent than in the symptomatic species. The former is attended with a mere sense of tenderness, and is accompanied with but little febrile excitement ; whereas the latter is intensely painful, and is most commonly associated with much constitutional disturbance. In addition to these differential characteristics, a valuable aid to our means of diagnosis has been supplied by inoculation. In a former chapter I stated that, after numerous experiments, I was never enabled to produce inoculation from matter taken from sympathetic buboes ; whilst the operation in the symptomatic variety was frequently, although not invariably, followed by positive results. It has now been verified by repeated observation, that a symptomatic bubo most usually exhibits itself on the side corresponding to the situation of the primary ulcer. The virus having been conveyed by the absorbents of the part to a neighbouring lymphatic gland, slight enlargement accompanied with tenderness on pressure is at first observable. The tumour at this stage is about the size of a filbert, rather superficial, and moveable beneath the skin ; but as the disease advances, the swelling increases, and mobility is less apparent. The tenderness over the gland and stiffness in the limb of the affected side originally complained of, now resolve themselves into pain, accompanied with difficulty in locomotion. The size of the tumour

still goes on to increase, assumes an oblong shape, becomes fixed in its situation and adherent to the subjacent tissues ; a throbbing sensation is now referred to the seat of the disease ; much febrile excitement is displayed, with loss of rest and appetite. The hardness which originally characterized the tumour now gives to the touch a soft, and yielding feel ; the skin becomes shining and pointed, till at length the cuticle gives way, and the matter obtains exit through one or a number of small apertures. Such is the origin and progress of the suppurating bubo ; but it does not necessarily follow that every glandular enlargement, the result of a primary sore, should pass through the different stages enumerated, or that the tumour should terminate in suppuration. In some cases, the enlargement disappears previous to the formation of matter ; and in others, a well-directed line of treatment will succeed in discussing the swelling, and promoting the absorption of its purulent contents, even when suppuration has advanced to a very considerable extent. M. Ricord draws a line of demarcation between what he terms mediate or consecutive buboes, the result of the absorption of the virus from either the non-indurated or the indurated primary ulcers. In the former class, he states that the inguinal enlargement is the exception, as the majority of non-indurated ulcers are not succeeded by tumefaction of the glands in the groin ; and that even when these enlargements do occur, they are in no

way prejudicial to the constitution, and most frequently terminate in suppuration. He has likewise observed that although bubo, the result of the non-indurated sore, may present in the course of the first or second week from the date of primary infection, its appearance is frequently deferred for weeks or months; and in one instance, he adds, which came under the notice of M. Puche, the bubo did not show itself till after the lapse of three years. In this class he remarks that inoculation always gives rise to positive results. In bubo, resulting upon the indurated ulcer, M. Ricord has always encountered the inguinal disease; the accession of which is seldom protracted beyond the second week from the first appearance of the primary indurated sore. In this affection he has observed that the lymphatics exhibited a hard, indolent, and knotted aspect in the neighbourhood of the valves; that the progress of the bubo was slow and indolent, seldom terminating in suppuration; and that when this latter result took place, the pus which it afforded never inoculated. I have already endeavoured to prove that inoculation of the matter of buboes, is not such an unerring indication of the nature of the disease as M. Ricord would lead us to suppose. I cannot therefore agree with him in affirming that the operation will *always* furnish an incontestible and pathognomonic sign; but, with this exception, the soundness and the accuracy of the remarks as regards the comparative frequency, the

acute and indolent character, (the latter quality partaking of one of the chief peculiarities of the indurated ulcer to which it succeeds,) and the relative liability to suppuration in the two varieties of bubo described by him, will, I doubt not, be confirmed by the experience of every practical surgeon.

There is another variety of bubo which in former days was of frequent, but now, owing to an improved system of treatment, is of rare occurrence; I allude to the *phagedenic* or *sloughing* variety. It is a well ascertained fact that, in consequence of the rapid destruction of the parts originally attacked in the primary phagedenic ulcer, bubo, as a sequence of this form of disease, is seldom encountered. I have myself never observed a case of primary phagedena in which this complication was present; and out of the numerous examples of phagedenic ulceration adduced by Mr. Carmichael, I have not been able to meet with a single instance where bubo either coexisted with, or succeeded to, this description of primary sore. It would, therefore, be an idle speculation to hazard, in this peculiar affection, any opinion with reference to the connexion between cause and effect, grounded upon the elimination of a distinct poison. As I shall, however, have occasion, as we proceed, to speak more particularly of this destructive form of disease, and the causes to which it most frequently owes its origin, I shall not at present do more than make this passing allusion to it.

Treatment.—In sympathetic bubo, resulting upon uncomplicated gonorrhœa, (for where a concealed urethral ulcer coexists, it will most usually give rise to the symptomatic form), the administration of mild purgatives, combined with rest, will in the majority of cases be sufficient to effect resolution of the tumour. When much tenderness on pressure is associated with it, the application of a few leeches over the enlargement will be attended with considerable relief to the patient ; but, as a general rule, local depletion will not be demanded. In the symptomatic species, where the enlargement succeeds to some form of primary ulcer, and where much local inflammation, with general constitutional disturbance, is present, in addition to the means recommended in the sympathetic variety, the tartar emetic mixture with opium will be found a valuable preliminary ; and will seldom fail in reducing the inflammatory action, and allaying the febrile irritation which so commonly attends upon it. I have never found it requisite in the management of these affections to resort to general depletion ; the foregoing appliances being in themselves sufficiently adequate, to answer every indication which blood-letting could be expected to effect. When inflammation has been subdued, well graduated pressure over the tumour, more especially when put in force during the incipient stage, has frequently succeeded in accomplishing a cure without the intervention of any other means. The most successful mode of

treatment, and one which I have for some years adopted in the Lock Hospital, is that proposed by M. Malapert,* and employed extensively in the discussion of these glandular enlargements by M. Ricord and Cullerier in the Venereal Hospital at Paris. It consists in the application of a blister over the bubo, with a subsequent dressing to the denuded surface, of a solution of the bichloride of mercury, in the proportion of a scruple of the salt to an ounce of water. The dressing is to be kept in close approximation to the vesicated part for two hours, and on its removal a dark brown eschar will be observable. A simple poultice, with a view to the detachment of the eschar, is now to be placed upon the part ; upon the separation of which, the tumour will either be materially diminished in size, or will no longer be perceptible. When the bubo has attained large dimensions, and when it assumes a chronic and indolent character, the repetition of the above measures may be demanded, in order to produce a decided discutient effect. It is almost unnecessary to add, that the prospect of complete success, and consequently a favourable prognosis, will be proportioned to the early period at which these remedial measures are adopted. I have tested on an extensive scale, in hospital practice, this plan of treatment for upwards of four years ; I have employed it in all stages of the disease, after the

* Archives Générales de Médecine, Mars, 1832.

subsidence of inflammatory symptoms; and have in most cases effected resolution of the tumour and absorption of the matter, even where suppuration had advanced to a considerable extent.

In buboes of recent standing, and where the irritation consequent upon the application of the blister forms an objection in the mind of the patient, painting over the enlarged surface with the tincture of iodine, night and morning, will often be sufficient to disperse the tumour. It will sometimes happen that, notwithstanding all the care and attention on the part of the surgeon, suppuration advances to the last stage; the integuments become thin, bright, and shining; and the tumour begins to point. In all cases where the integuments covering the bubo are sound, in order to save tedious suppuration, it will be advisable to make an artificial opening into the abscess, rather than permit the skin to break spontaneously. This may be effected by means of the ordinary abscess-lancet. The matter having so closely approached the surface, it will not be requisite to make a deep incision, and a small opening only large enough to give exit to the matter should in every instance be preferred to an extensive incision. By the observance of these rules, the integrity of the integuments will be preserved; and after the evacuation of the purulent contents of the abscess, cicatrization will be more easily effected. As a consequence of free incisions, the cure is materially protracted by

the length of time occupied in the filling up of the cavity, which can only be accomplished by the springing up of granulations from the bottom of the abscess ; added to which, the edges of the wound not unfrequently evince a disposition to turn in upon each other ; and when reparation has been perfected, a puckered appearance is given to the cicatrix.

Cases will occasionally present, where the foregoing directions for the opening of buboes will not apply. In these instances it will at once be apparent, from the livid appearance of the skin covering the tumour, that disorganization of the integuments has advanced to a stage where their destruction is inevitable, and where the most energetic means must fail in arresting the sloughing process which will most assuredly result. Here the operation should be effected through the medium of *potassa fusa* ; and a slight puncture should be made with a lancet, on the following day, in the centre of the eschar thus produced. In these latter cases, the patient must be prepared for a lengthened confinement, consequent upon a troublesome and protracted process of suppuration, and the final regeneration of a new cuticular covering.

Hitherto I have addressed myself solely to the local treatment of buboes, and have made no allusion to constitutional remedies. As in every variety of syphilitic affections, so in the management of these abscesses, mercury has occupied a

prominent position ; indeed, according to the assertion of Dr. Wallace, these enlargements in their first stage can be resolved, in ninety-nine cases out of a hundred, by the administration of mercury ; and throughout all subsequent stages, and in all the varied degrees of suppuration, this remedy is stated to possess almost equal specific powers. But, in making this assertion, the writer alluded to would seem to have lost sight of the fact, that sympathetic buboes, which form a large proportion of the enlargements which are continually presented to our notice, disappear for the most part upon the use of simple means, and very rarely terminate in suppuration ; consequently mercury, when prescribed in this variety, can never be said to have produced their resolution, much less to have arrested the suppurative disposition in them. Again, buboes resulting upon primary syphilitic ulcers do not necessarily suppurate, and their resolution, as we have previously seen, may be effected through the medium of local applications ; and, even when suppuration has advanced to a considerable extent, the absorption of the matter may be promoted by the same topical means.

Having thus perceived that, in numerous instances, mercury is not required for the dispersion of these tumours ; it will in the next place be an important question to decide, what is the true position this mineral should occupy in the treatment of buboes. First, mercury is indicated where the

inguinal disease coexists, or succeeds to the indurated primary ulcer ; as this remedy, in accomplishing the cure of the primary affection, will likewise assist in the dispersion of the tumour. Secondly, when the bubo degenerates into a chronic condition, mercury, by stimulating the absorbents as in non-specific abscesses, will in conjunction with local treatment prove a valuable auxiliary. There is still another variety of bubo, which is occasionally, but now rarely met with, where a phagedenic action is set up in the part, ulceration and sloughing attack the integuments, and the cellular membrane in the vicinity of the diseased gland is rapidly disorganized. This formidable species of ulceration sometimes proceeds to such a depth as to lay bare the femoral artery, and sudden hæmorrhage, owing to the ulceration of the coats of this vessel, has been known to produce almost instantaneous death. This form of bubo is occasionally encountered in patients of irritable habit ; but most usually presents in individuals in consequence of any excess of inflammation, produced in the affected gland and adjacent structures by the injudicious administration of mercury ; a fact fully corroborated by the frequent exhibition of this species of disease in former days, and its comparative rarity at the present time. The treatment in the phagedenic bubo will be very similar to that indicated in the primary phagedenic ulcer ; rest in the recumbent posture should in the first instance be strictly en-

forced ; and if these symptoms present while the patient is under the influence of mercury, its further use should immediately be abandoned. The tartar emetic mixture with opium will here be found a most valuable remedy, in assisting to subdue inflammatory symptoms, and in tranquillizing the nervous system. The application of the acid nitrate of mercury to the ulcerated parts, and its repetition during the continuance of the phagedenic action, will be attended with the best results. The subsequent dressing of the cavity, with balsam of Peru and castor oil in equal proportions, will promote the growth of healthy granulations ; and the healing process, as in other forms of open bubo, will be completed by the employment of emollient cataplasms. The internal administration of the iodide of potassium will, in the latter stages of the disease, be highly beneficial, and will materially expedite the patient's recovery.

Buboes will occasionally show a tendency to the *formation of sinuses in the fold of the groin* ; the margins of the skin above the ulcer assume a red and elevated appearance, and the discharge is thin and unhealthy. Weak solutions of nitrate of silver, sulphate of copper, or bichloride of mercury injected into the sinuses, together with the cauterization of the raised edges, will sometimes effect a cure ; but should these applications fail, the sinus should be laid open and dressed from the bottom. Mercury, in these cases, by causing rapid extension

of the disease, will usually be productive of the most disastrous consequences. In all cases of ulcerated bubo, attended with protracted suppuration; a general line of tonic treatment will be called for ; and the propriety of change of air should in every instance be inculcated. Individuals of a lymphatic temperament, or strumous diathesis, are more prone to the formation of buboes than others of a more robust and healthy constitution ; hence the utility of the preparations of iodine in the treatment of this affection. In patients of decidedly scrofulous habit, the iodide of iron will, for obvious reasons in the latter stages of the disease, be preferable to the salts of potash.

CHAPTER XVI.

SYPHILIS IN PREGNANT WOMEN AND INFANTS.

OF the many causes which conspire to produce abortion and premature confinement, few hold a more prominent position, or are more decisive in their effects, than the syphilitic virus. In whatever mode introduced into the system of the mother, the fœtus in utero is, in very many instances, imbued with the poison; and, having ceased to live for some weeks previous to birth, is cast off as a foreign body. When this result occurs, it takes place for the most part antecedent to the seventh month of utero-gestation, and the fœtus is ushered into the world in a state of semi-decomposition.*

* The accuracy of the above proposition has been questioned by some writers whose opinions are entitled to respect. Thus, MM. Trousseau and Lasègue deny that syphilitic symptoms are ever apparent in the infant at birth, and affirm that they are never eliminated previous to the second week of existence; and in the recent edition of his work, Mr. Aeton joins issue with Dr. Campbell of Edinburgh on this particular subject; the latter gentleman contending that abortion from syphilitic taint is a very common occurrence about the seventh month of utero-gestation, in which case a putrid child is most usually produced; and the former maintaining that such a result from venereal contamination is extremely rare. Mr. Aeton, while he admits that "syphilis, like many other diseases, may blight the ovum," believes that abortion from this cause is much more unusual than

But it not unfrequently happens that the mother continues to carry the child beyond this period, and that labour is protracted till between the seventh and eighth month, when miscarriage without any appreciable cause suddenly ensues, and the child is born betraying indubitable evidence of infection. In this state it generally survives but a few hours ; it has a shrivelled and emaciated appearance ; its cry is hoarse and feeble ; the skin hangs in folds, and is easily peeled off, and is occasionally mottled with a copper-coloured eruption. The mother of

what is generally supposed ; and that if we examine into the records of venereal hospitals, we shall find that abortions are not more frequent at the seventh month than at any other period. While I coincide in the opinion that the mere circumstance of a putrid child is not in itself a proof of venereal taint, and that it requires other corroborative symptoms to establish the fact, I have had convincing and indubitable proofs, in the wards of the Lock Hospital, *that abortions at the seventh month are particularly frequent in women labouring under the secondary forms of syphilis.* The previous history of the cases, in conjunction with the appearances presented in the fœtus at birth, form undeniable evidences of the nature of the exciting cause. I have not, I regret, kept a registry of the cases to which I allude ; but I can safely state that the principal source of infantile mortality in that institution, is attributable to a venereal taint evincing those effects at birth, and occurring about the seventh month of utero-gestation. Mr. Whitehead, likewise, in his treatise on "Hereditary Diseases," says that out of two hundred and fifty-six deliveries of syphilitic women in his own practice, one hundred and ten terminated prematurely at different periods of the process. In five, abortion took place at two months ; in thirty, at three months ; in thirteen, at four months ; in four, at five months ; in ten, at six months ; *in thirty-nine, at seven months* ; in sixteen, at eight months. Of those that arrived at the full term, ten died during the first week, two in the second, one in the third, five in the fourth, eight in the second month, six in the third month, seventeen within the first six months, three within nine months, one within one year, seven during the second year, and one in the third year.

such an offspring may be most prolific; but a series of such casualties as those already described will most probably supervene, at the time when she is looking forward, perhaps with feelings of maternal anxiety, for some reward for the pains and perils to which the ordeal of child-bearing subjects her. It does not, however, invariably happen; nor is it essential to demonstrate the venereal taint, that labour should come on before the natural term of utero-gestation; on the contrary, it very usually occurs that the mother fulfils the period allotted to healthy pregnancy, and after the ordinary time parturition is accomplished. This case differs in some respects from the two preceding; for here the infant is born apparently healthy and well nourished, and may continue so for a variable period, ranging from ten days to six weeks, and sometimes much later,* when the attention of the nurse is suddenly arrested by a peculiar mode of respiration, familiarly known by the appellation of "snuffles." From the accession of this symptom, the child is observed to lose flesh rapidly, it is fretful and peevish, its sleep is broken, its skin is hot and dry, and it takes but little nutriment. A few weeks afterwards, a copper-coloured eruption encircles the anus and genitals, which spreads along the folds of the groins and back of the neck and

* Instances are related by M. Bertin, in which the disease did not show itself till the first, second, or third month, and frequently not till after weaning, up to which time the child continued in the enjoyment of health.

thighs, and eventually degenerates into foul and unmanageable ulcers. The mouth assumes a puckered appearance, the voice becomes hoarse and feeble, and the expression of the countenance is that of an individual advanced in years rather than that of an infant. Should the eruption decline, a peculiar fissured appearance of the surface is visible, which by many is looked upon as a symptom pathognomonic of the disease. At a later period, condylomatous excrescences form about the anus; apthæ engage the interior of the mouth, on the angles of which ulcers are generated; at length the child falls a victim to marasmus, and dies covered with offensive ulcerations. Such, then, is the course of the disease when it attacks the infant; but in order to determine the affection, it is not requisite that all the symptoms enumerated be present, or that they should follow in the precise order laid down: an experienced eye, however, will seldom be at a loss in forming a diagnosis. In his elaborate and truly scientific work on prostitution in Paris, M. Parent Duchatelet, whose whole life seems to have been devoted, in a spirit of pure philanthropy, to the amelioration of the physical and moral condition of his countrymen, observes:—"That of the eight children commonly born annually in prison, four die during the first fortnight, and the remaining four during the course of the first year. Of the ten children born in one particular hospital during the year, five die at the

moment of their birth, and five before the complete recovery of the mother.”*

I have been induced to treat of this subject, because I believe it to be one of paramount importance ; involving, as it does, not alone the domestic happiness of a family, but frequently the life of the parent and her offspring. And I do so the more readily, from having witnessed, during my connexion with our Lock Hospital, the different phases of the disease both in the parent and the child, with the frightful mortality it produces in infantile existence ; and having myself experienced considerable difficulty in obtaining precise and accurate information from works professing to treat on the diseases of women and children, the majority of which pass over in silence the affection to which these remarks refer. There are several interesting inquiries, both in a physiological and practical point of view, suggested by the subject. And first, as to the sanatory condition of the parents in whose issue evidence of contamination is traceable. It has been for a long time supposed that, in order to transmit infection to the fœtus in utero, it was essential that one or both parents be labouring under some form of syphilis, either of a primary or secondary character, at the time of conception, or that the mother should contract the disease during pregnancy. This is a condition which no

* *Physiologie des Prostituées*, tome i., p. 243.

doubt frequently obtains ; but to it there are some exceptions. Thus, it has been proved that the syphilitic taint may be transmitted by the father to the ovum ; while the mother, the vehicle through whom infection has been conveyed, enjoys perfect immunity from any symptom of contagion. An example of infantile syphilis, under such circumstances, is recorded in the practice of Mr. Parker, surgeon to the Queen's Hospital, Birmingham ; where the child having evinced decided proofs of the disease a few weeks after birth, was placed under treatment, while the father was an inmate of the hospital, suffering from the effects of secondary syphilis. In this case the infant alone was treated, and Mr. Parker observes that he purposely abstained from the employment of therapeutic measures in relation to the mother, whom he closely watched for two years, in order that he might have an opportunity of perceiving whether syphilis would sooner or later develop itself. During the whole of this period, the mother continued in the possession of perfect health.* Mr. Acton brought before the notice of the Medico-Chirurgical Society a similar case, and other examples were furnished on that occasion by members who took part in the discussion. Thus, it would appear that syphilis may be produced in the infant by a constitutional taint in the father, while there is no perceptible

* On Syphilitic Diseases, second edition, p. 187.

disease in the mother. Again, it has been exemplified in numerous instances, that the fœtus in utero may be infected where both parents are perfectly healthy ; and where, upon the most minute examination, no traces of disease, local or constitutional, are discernible in either. The history of such a case is as follows:—The father of the child had contracted infection some months, or even years, previous to his marriage ; and, having been submitted by his medical attendant to mercurial treatment, has been pronounced, long anterior to matrimonial alliance, radically cured. In the interval he continues quite free from any varieties of the disease, and his wife after the usual period proves pregnant, and about the seventh or eighth month miscarries. The child is either still-born, or survives its entrance into the world but a few hours, and upon examination exhibits those symptoms of infection alluded to. Upon investigation, the wife will be found in every respect healthy, never having had the slightest indication of disease. Examples of this kind are more particularly recorded by the late Dr. Colles, alluded to by Drs. Maunsell and Evanson, by Mr. Hey of Leeds, and more recently by Dr. Whitehead.

Once more. It has been asserted, (and in corroboration of that assertion a case has been adduced by Dr. Colles, who states that he has met with five or six instances) that secondary symptoms may show themselves in the wife, where the husband

had previously suffered from the disorder, but had been reported cured some months prior to his marriage ; that these secondary affections in the female have not been preceded by any form of primary sore, and that upon the closest inspection both parties will be found perfectly free from disease.* I regret, however, that I cannot coincide in opinion with that eminent surgeon as to this inexplicable process of contagion ; for it strikes me, and I am the more strengthened in my conviction, upon the perusal of the case the particulars of which he records, that the original ulcer in the male, though apparently healed, had been but thinly skinned over, and that during the act of coition the imperfect cicatrix had to some extent given way, and in this manner the virus may have been transmitted to the female. It is likewise worthy of remark, that in the case to which allusion has been made, the speculum was not had recourse to for the purpose of minute investigation ; and it is not at all improbable that a sore may have formed deep in the vagina, through the medium of which absorption may have taken place, and which might have been detected by the aid of that instrument. Nor is it an accident of rare occurrence, that an ulcer forms or an abrasion is effected in the vagina, which heals up so quickly as to be unattended with the slightest inconvenience, and in this way may

* Observations on the Venereal Disease, p. 263.

even escape the observation of the female herself. I do not therefore think it possible, under any circumstances, that secondary symptoms could present, without having been preceded by some form of primary sore. There is still another point in connexion with this part of the subject, to which I would advert, viz. as to whether the infant may have received the infection in utero, or may have been imbued with the poison during the process of parturition. In every instance of infantile syphilis which I have witnessed (with the exception of purulent or gonorrhœal ophthalmia), I have been able most satisfactorily to trace the contagion to constitutional taint ; and I believe it rarely or never occurs, with the solitary exception stated, that the child is contaminated *in transitu*. I would, however, recommend the practitioner, whenever he perceives the existence of ulcers on the parts of generation in the female, to have recourse to the free application of caustic to the surface of these sores, in order that he himself may escape contamination during his professional attendance ; as cases are on record, in which absorption has taken place through the medium of an abrasion on the hand of the practitioner, and in this way an inveterate form of disease has been contracted. It has been questioned whether the mere fact of the production of a dead or putrid fœtus is in itself sufficiently characteristic of venereal taint in the system. Such a phenomenon is by no means decisive ; and in order

to be confirmed in our diagnosis, we must look for other marks of infection, or be guided altogether by the history of the case.

Treatment.—I shall now proceed to the consideration of topics of more practical utility, in reference to the treatment proposed ; first, in relation to the mother ; and secondly, as regards the infant itself. It not uncommonly occurs that a female, more or less advanced in pregnancy, is introduced for the first time to the notice of a practitioner. She states that her reason for seeking advice is, that she has had one or more miscarriages, and that on each occasion her child was born dead. The history of her case may be such as to leave no doubt upon the mind of her attendant, that the mishaps which she recounts have been mainly caused by a venereal taint ; in addition to which, she may be at that moment labouring under some form of the disease. Is this woman to be permitted again to abort, or is there any prospect of averting a casualty so distressing to her even in anticipation ? I do believe that, under a judicious and well-directed line of treatment, a living and healthy child may be ensured ; when, under other circumstances, disease and death would be inevitable to her offspring. A popular prejudice has for a long time been in operation, that mercury administered to a pregnant female predisposed her to miscarriage. My experience would lead me to an opposite conclusion ; and I perfectly respond to the observation of M. Bertin,

“that diseased pregnant women more frequently miscarry when they have not been submitted to any treatment, than when they have been treated during pregnancy ; and that when this event happens during the course of treatment, it depends commonly either upon the disease itself badly treated, or treated too late ; upon the state of cachexia or weakness to which the patient has been reduced by her disease ; or upon the excesses she has committed during her pregnancy.”*

In four instances which came under my notice in the Lock Hospital, in all of which there was conclusive evidence of disease (abortion having previously taken place in two), I succeeded in effecting ptyalism after the fifth month of utero-gestation, and was gratified at finding that healthy children were subsequently produced. In these cases the mercury was introduced into the system by inunction, which I believe to be the safest mode of exciting the absorbents during the existence of pregnancy. I experienced, however, considerable difficulty in producing salivation in this class of patients, and more than once my efforts proved ineffectual. In the fourth volume of the *Transactions of the Association of the King and Queen's College of Physicians in Ireland*, an interesting and valuable paper “On a Species of Premature Labour,” appeared from the pen of the late Dr. Beatty of this

* *Traité de la Maladie Vénérienne chez enfants nouveaunés, &c.* Paris. 1810.

city, in which he states that "so early as the year 1789, when I was resident assistant in the Dublin Lying-in Hospital, I delivered a woman in Great Britain-street of a putrid child, in the eighth month of her pregnancy ; which she told me had been the case with several children that she had before, and that she despaired of having living issue. I inquired very particularly into the state of health of both parents, and suspecting venereal taint to be the cause, I proposed to them the use of mercury and separate beds, until I should be satisfied with the quantity of mercury used. They readily complied with the proposal, and the result was a living boy in due time after the mercury had been discontinued ; and their happiness at the event may be more readily supposed than described, as they were both at the time pretty far advanced in life, and never had another child." Dr. Beatty then proceeds to the description of similar cases, in all of which he had succeeded in the production of living children by the employment of mercury ; and sums up his observations by stating that, in answer to the question, "What are the most likely means of preventing the death of the fœtus in utero ?" he would say "*the use of mercury.*"

In his work upon the Evidences of Pregnancy, a case similar in character has been reported by Dr. Evory Kennedy, in which a like beneficial result was the consequence.*

* In perusing the details of the many cases of syphilitic pregnant women reported by Dr. Whitehead, I cannot refrain from thinking that if mercury

The foregoing are examples in which the mercurial treatment was adopted as a preventive measure in the unimpregnated female. Thus we perceive that this mineral may be safely and advantageously resorted to, in the complicated as well as the simple state of female organization. We shall now briefly pass on to the review of the treatment most appropriate in the management of the syphilitic infant. Two methods of cure, or a combination of both, have been proposed. The first, which is commonly termed the indirect, consists in administering mercury or other medicaments to the mother, in order that their effects may be transmitted through the medium of the milk to the nursling ; the other, which is known by the designation of direct, is that of treating the infant itself, irrespective of the nurse ; and sometimes, in order, as it has been supposed, to expedite recovery, remedies are employed in both instances. As to the indirect mode of treatment, I do not think it can ever be relied upon ; children bear mercury better than almost any other form of drug, and I conceive it far more judicious, as well as a much safer line of practice, to administer the remedy to the infant itself. As regards the preparation and the manner in which it should be prescribed, my experience would lead me to assert that, in the very early periods of infantile

had been administered to the mother during pregnancy, so as to produce salivation, a much fewer number of abortions and diseased children would have fallen under his notice.

existence, the most suitable preparation is the hydrargyrum c. cretâ, two or three times daily, in doses proportioned to the age of the child. Should it produce intestinal irritation, or engender diarrhœa, as it occasionally does, the addition of a small quantity of Dover's powder will generally succeed in controlling it. But to a child of a few months old, I far prefer the mild mercurial ointment to any other preparation. It may be rubbed into the soles of the feet, and smeared on the flannel belt which children are in the habit of wearing. Under this plan of treatment, the child begins to gain flesh, its spirits improve, the eruption declines, and its appetite increases. When those results are observable, the mercury may be discontinued, as its salutary influence is now amply displayed. It must be borne in mind that, in children under three years of age, the salivary glands are very rarely affected; we must not, therefore, expect to meet ptyalism in this class of patients, as the effect of the action of mercury upon the system. But even under those circumstances, the child is not free from relapse. When this takes place, the iodide of potassium has in my hands proved the most useful remedy in arresting the progress of the malady.

It sometimes happens, however, that, notwithstanding all our care and attention, the child, after having survived for two or three years, begins to decline in health and spirits, rapidly emaciates, sinks, and dies. On a post-mortem examination, I

have in many instances found the substance of the lungs studded with tubercle, and the mesenteric glands considerably enlarged ; in two or three cases lymph was thrown out, accompanied with more or less effusion into the cavity of the peritoneum.

In conclusion, I beg leave to recapitulate the leading points of interest.

1st. The fœtus in utero may be contaminated by decided syphilitic symptoms in the father, while the mother may present no traces of the disease. 2nd. The child may be affected by a *latent venereal taint* in the father, while the mother may exhibit no evidence of the malady. 3rd. The child (with the exception of purulent or gonorrhœal ophthalmia) is rarely affected during its entrance into the world. 4th. Abortion may be prevented, and a healthy child ensured, by a judicious mercurial treatment conducted during pregnancy. 5th. A syphilitic taint in the unimpregnated female may be removed by the employment of mercury.

CHAPTER XVII.

SYPHILIS AS CONTRACTED FROM NURSED CHILDREN.

THE medico-legal question to which I am now about to direct attention, involving as it does the best and most sacred interests of society, is one of such paramount importance, that I am induced to dwell more at length upon its details than, under other circumstances, I would feel justified in doing ; more especially as, from the perusal of the chapter allotted to its consideration in a modern work, the reader is led to infer that the subject of the communicability of infection from the child to the nurse, and *vice versâ*, was still, to say the least, *sub judice* ; and that the evidence brought forward to support the positive side of the question was rather of a fabulous than an authentic nature. Should any further apology be required, for introducing a series of cases to substantiate the position for which I have for many years contended, it will be found in the fact that, from the contrariety of opinions and consequent uncertainty in the minds of medical men on a point of such vital issue, the

profession in this country (as expressed to me, while these sheets were under revision for the press, by a highly intelligent and practical hospital surgeon) would, if pressed in a court of justice, be completely at a loss in giving a decided opinion on the matter. In the May number of the *Dublin Quarterly Journal* for 1846, while surgeon to the Lock Hospital, I published a short paper, illustrated by cases, on the subject under consideration. The cases supplied were given by females under my care in the married wards of that institution, and went to prove the possibility, nay, the *certainty*, of contamination from this source. In the following month an interesting case, the subject of legal investigation, was reported by Dr. O'Connor of Cork, followed up by a similar one by Dr. Gavin, corroborative of the views put forward by me in the paper alluded to; and, in the *Lancet* of the 22nd of August of the same year, I published an additional instance with observations. The opponents of the doctrine of contagion in secondary syphilis are influenced, in their decision, for the most part, by the fact that the disease in this form has never been produced by artificial inoculation; and were I to draw my inferences from that circumstance alone, or allow any preconceived opinions to bias my judgment, I should never have come to the conclusion (notwithstanding a chain of evidence to the contrary) that a syphilitic infant could infect a healthy nurse, and *vice versa*. From

the cases, however, which I shall presently adduce, together with those supplied by Drs. Colles and Whitehead from the opinions of some of the most celebrated accoucheurs in this city, whose practice in such affections has been by no means inconsiderable ; and from the joint testimony of the other names referred to, I should, indeed, be more than sceptical, were I to question the possibility of contagion from this source.

The first case of importance, and which at the time gave rise to an animated discussion, was that already alluded to under the care of Dr. O'Connor. The child, as stated by the medical attendant, had sores on its mouth, around the anus, and on the scrotum. The nurse contracted the disease ; was covered with a desquamation of branny scales all over the body ; infected her husband, the disease in whom appeared in tuberculated ulcers on the dorsum of the penis ; and she subsequently gave birth to a diseased infant, which died from the effects of the disorder. A short time afterwards, the nurse was admitted into the hospital attached to the Cork union workhouse ; the disease proved exceedingly intractable, and a cure was with difficulty effected. Dr. O'Connor, physician to the Cork union, deposed that the patient laboured for six weeks under the effects of secondary syphilis, and that it was his decided opinion that infection was transmissible from the child to the nurse. This evidence was substantiated by two other wit-

nesses, Drs. Bull and Ahearn. In alluding to this case, Dr. O'Connor remarks, "In conclusion, I think you will admit that I have established the following facts, that the mother had an intractable sore on her breast; that the child, when given to the nurse, had a rash on its body, and sores on its lips, which were afterwards pronounced by a physician to be syphilitic; and that the nurse afterwards became affected with syphilitic disease, and gave birth to a child that died of that affection." An additional case is furnished by Dr. Gavin.* The subject of it, a Mrs. A——, in consequence of her own child being unable to suck the breasts, a strange infant was applied, and continued twice a day for four or five days. At this period, the left nipple was fissured, and a number of spots subsequently appeared around it. Six weeks after, the nurse was affected with a syphilitic eruption, and excavated ulcers in the tonsils supervened. The nurse and child finally recovered. "The wife," adds Dr. Gavin, "being virtuous, could be inoculated in no other way than through the suckling of the diseased babe." Mr. Acton details a case of supposed infection of nurse by a child, and remarks as follows:—"Without denying the possibility of their occurrence, I have never yet been able to meet with instances which I could assign to contagion; and I must hesitate before yielding my opinion, know-

* *Lancet*, July 18th, 1846.

ing, as I do from experience, the difficulties that beset the question, they are only cognizable to those who treat syphilis."† The same sentiments, I regret to find, are expressed by that gentleman in the last edition of his work, published during the past year. The following are the cases which came under my own immediate care, the particulars of which I transcribe from the journals in which they were inserted.

Case 1. Ulcer of the breast ; pustular eruption ; sloughing at the back of pharynx ; inoculation ; result negative.—Rose Mac A——, aged thirty-four, of temperate habits, a married woman, and mother of three children ; her husband a man of irreproachable character ; admitted into the Lock Hospital under my care, June 1st, 1844. States that in December last she was employed as wet nurse to a child then seven weeks old, and to all appearance in the enjoyment of perfect health. In a week afterwards, an eruption made its appearance, first on the nates, and subsequently on the inside of the thighs, which continued alternately declining and re-appearing, and was the only symptom of disease present ; until within the last two months, when she observed a soreness of the mouth, and a disposition in the mucous membrane to become detached from the lips. Up to this period, she continued to nurse the child without perceiving any ill-effects, al-

† *Lancet*, August 3rd, 1846.

though repeatedly recommended to desist. On examination, an ill-defined scaly eruption is visible on the inner part of the thigh and arms of the child ; a few spots are interspersed over its body ; there are no condylomatous excrescences, or any other affection in the vicinity of the anus or vagina, and the mouth is now perfectly healed. An ulcer about the size of an ordinary plum-stone, of an irregular and excavated form, with uneven and slightly everted edges, situated immediately to the right of the nipple, is seated on the left breast of the nurse ; which she states first presented itself a few days after the mouth of the child became affected, and commenced in the form of a fissure, which has been gradually increasing in size to the present time. It is unattended with pain, and none of the neighbouring glands have become enlarged. For the last week she has been complaining of sore throat ; an erythematous blush pervades the back of the fauces, but no ulceration is present ; there is an increased vascularity of the palpebral conjunctiva, with a vitiated secretion from the glands ; but the structure of the eye is unimpaired. Inoculated the arm with matter taken from the ulcer ; ordered five grains of the iodide of potassium in decoction of sarsaparilla three times a day ; the dilute nitrate of mercury ointment to be applied to the palpebræ at bed-time, and a lotion of sub-borate of soda, with prepared chalk in equal parts of rectified spirits and water, to

be kept to the parts affected. The child to take two grains of hydrargyrum cum cretâ three times in the twenty-four hours.

June 4th. Nurse's throat much improved ; ulcer on breast has assumed a healthy appearance ; complains of pains in the head and back ; medicines repeated.

17th. Has lost all pain ; throat well ; inflammation has left the conjunctiva, and the lids have ceased to adhere ; ulcer on breast decreasing in size ; no effect produced by inoculation. Child :—The eruption fading, and its general appearance much improved.

30th. The ulcer which occupied the breast of the nurse completely healed. No vestige of the eruption is visible on the child, which appears in perfect health. July 5th. They were discharged.

Oct. 19th. Nurse re-admitted ; states that she has not enjoyed good health since her discharge. Shortly after leaving the hospital, copper-coloured spots appeared on the arms and thighs ; has been recently taking pills which have induced ptyalism. Her face is now covered with a pustular eruption, which is also very thickly scattered over the buttocks and upper part of the thighs ; the orifice of the vagina presents a tuberculated condylomatous appearance. On looking into the throat, a granulated condition of the back of the pharynx is observable, covered by a thin transparent coating of muco-purulent matter ; experiences much pain

and difficulty in deglutition ; has lost all appetite for food ; speaks in a low whisper, not however amounting to aphonia ; complains of pains in the knees, oppression of the chest, and a sense of "great weight," as she expresses it, at the heart, accompanied with palpitations ; perspires rather profusely at night, from which she finds considerable relief. Chest morbidly clear on percussion ; has become very much emaciated since she was last in hospital ; pulse 120, small, and weak ; gums tender, with mercurial fœtor. Child died six weeks ago from a protracted diarrhœa. Her throat was touched with the acid nitrate of mercury, and she was again put on the use of the iodide of potassium, in combination with the compound decoction of sarsaparilla. Under this plan of treatment, combined with nourishing diet, convalescence was slow but steady ; the eruption desquamated, she gained flesh rapidly, and the throat was completely healed on the 24th of February, when she was discharged. She had another relapse of the sloughing sore throat, for which she was treated in the hospital.

Case 2. Ulcer of breast ; scaly eruption ; excavated ulcer of tonsil ; inoculation ; result negative.—Mary F——, aged thirty-six, of strictly temperate habits, married, and mother of four children ; admitted March 14th, 1845. States that twelve months ago she was employed as wet-nurse to a child, then six weeks old, and apparently in perfect health.

About a month afterwards, a "rash" appeared on its body, which induced her immediately to apply for medical advice. The child at this period was seen by my friend Dr. Isdall; who, from the nature of the symptoms, suspecting a syphilitic taint, prescribed the usual remedies, and at the same time recommended the nurse to relinquish the further charge of the child. Contrary, however, to this advice, and perceiving the child improve daily under treatment (the eruption having now almost entirely declined), she persevered in nursing until within the last six weeks, without perceiving any ill effects; the eruption occasionally appearing and declining. At this stage she observed, for the first time, blisters on the tongue and palate of the child, with a constant flow of saliva from the mouth. The lips shortly afterwards assumed a fissured appearance. As the child does not accompany her, an examination of it was not afforded. An ulcer is perceptible on each breast of the nurse; that on the right is about the size of a split pea, and is situated immediately above the nipple; the left is somewhat smaller, and engages the nipple itself, at its upper part. Both are slightly excavated; they were formerly attended with a discharge, but are now perfectly free from the slightest degree of moisture. She has undergone no form of treatment for the disease, with the exception of four pills (supposed to be mercurial), which she took within the last fortnight. The lancet was applied to the

base of the ulcers, and inoculated on the arm ; but no effect was produced by the operation. About ten days ago, an eruption showed itself on the back of the fore-arm and wrists, and subsequently presented on the neck and forehead. The eruption is of the scaly description, and well-defined ; complains of soreness of throat and difficulty of deglutition. On examination, the arches of the palate, uvula, and tonsils are highly inflamed ; the posterior part of the pharynx exhibits a morbidly dry appearance. Ordered a grain of the proto-ioduret of mercury, with a grain and a half of extract of hemlock in pill three times a day.

March 19th. Throat much improved ; inflammation has nearly subsided ; can swallow without any degree of uneasiness. The back of the pharynx looks paler than natural ; ulcers on the breast have assumed a healthy aspect ; mouth unaffected.

21st. Ulcers on breasts very much diminished in size ; eruption commencing to desquamate ; mouth slightly touched.

24th. Ulcers nearly healed ; eruption fading ; mouth sore, with mercurial fœtor. Omit the pills ; use an alum gargle, and take a warm bath.

April 7th. Discharged.

16th. Was re-admitted for sore throat. On examination, an excavated ulcer is perceptible, occupying the posterior part of the right tonsil ; the uvula and velum are much relaxed, but not inflamed, and she speaks in a low whispering tone.

A few spots of the same form of eruption have re-appeared on the arms. Ordered five grains of iodide of potassium, in compound decoction of sarsaparilla, three times a day, and to have a tepid bath. Under this mode of treatment, improvement was steady and uninterrupted, and she was discharged cured on the 30th of June.

The following case differs from the two preceding, inasmuch as the nurse was merely employed in caring, not suckling the child. For this latter occupation she was disqualified by age.

Case 3.—Lacerated wound, through which the virus is supposed to have entered; eruption of doubtful character.—Eliza —, aged sixty, of temperate habits, a widow, and mother of nine children; her husband dead seven years; admitted April 25th, 1845. States that three months ago she undertook as dry nurse the care of an unhealthy infant, which at that time was labouring under disease, manifested by sores about the nates and mouth. The latter she describes as being of a brownish colour, and attended with a constant flow of saliva. While thus engaged, a scratch appeared on the neck of the nurse, whether produced by a pin or torn by the nail of the child, she is not certain; and, being in the habit of bringing the child's mouth in contact with the affected part, in order to induce sleep, thinks by that means the disease was communicated to her through the medium of the abrasion. On examination, a lacerated wound, of about an inch

and half in length, is perceptible, running parallel with the inferior edge of the clavicle on the right side ; surrounded by an erysipelatous blush, which is gradually lost in the adjacent structure. The neck and arms are covered with an eruption, the character of which it is impossible to determine, being now in the stage of desquamation. She is at present suffering from the effects of profuse salivation, caused by pills prescribed at a dispensary. Ordered an alum gargle. As she can masticate with difficulty, owing to the looseness of her teeth, a diet of flour and milk was prescribed.

April 30th. Ptyalism less profuse ; eruption continues to decline. Ordered five grains of iodide of potassium in decoction of sarsaparilla, three times a day.

May 2nd. Mercurial fœtor almost intolerable ; ordered a gargle of chloride of lime.

5th. Fœtor very much diminished ; salivation less profuse ; eruption fading.

12th. The mouth is now perfectly well, salivation having entirely ceased ; eruption continues to desquamate. Says she finds herself in every respect greatly improved. Omit the gargle ; repeat the iodide of potassium.

19th. Eruption has almost disappeared, with the exception of a few spots which have presented on the left arm during the last week. Nothing worthy of note was remarkable from this to the 4th of August, when she was discharged cured.

Case 4. Fissures of the lips ; condylomata ; syphilitic iritis.—Mary S——, aged forty-eight, married, and mother of five healthy children ; of strictly temperate habits ; her husband a man of excellent character ; admitted into the Westmoreland Lock Hospital, April 3rd, 1846 ; states that, about October last, she first took charge of her daughter's child (then one year and a half old,) to dry nurse. At this period there were sores at the verge of the anus of the infant, the mucous membrane of the lips was inclined to peel off, and the tongue was the seat of small white blisters. Shortly after birth, an eruption presented on its body, which had been alternately declining and re-appearing up to the date of her attendance on it. She likewise states that she was constantly in the habit of kissing the child during the time its mouth was affected, and more than once applied her lips to the sores on the anus. The mother contracted disease from her husband a few months after marriage, (now six years,) which appeared in sores on the labia pudendi. Since then she has borne five children : the first lived a year and a half, when it died, extremely attenuated from repeated attacks of the disease ; the subsequent children, with the exception of the present, were all premature and still-born. About the latter end of December last, the nurse perceived, for the first time, blisters on her tongue, with a fissured state of the lips, which disappeared in the course of six weeks without

having recourse to any mode of treatment. During this period she describes herself as "very dead in spirits," with an unaccountable oppression over her. In a month after the tongue and lips had healed, she was attacked with an inveterate itching of the vulvæ, which was succeeded by elevated (condylomatous) sores. At this stage she appears to have undergone an irregular and imperfect course of mercury; the sores healed notwithstanding, but inflammation of the right eye quickly ensued. She was again subjected to mercurial treatment; ptyalism supervened, and the eye regained its former healthy condition. She now remained free from disease for about a fortnight, when within the last ten days the left eye was similarly attacked, and for this she was admitted into hospital. On examination, the external structure of the eye presents a deep scarlet red colour; the pupil is irregular and indistinct, and surrounded by whitish tubercles; the membrane of the aqueous humour is semi-opaque, giving the appearance of turbidness to that fluid; she complains of extreme intolerance of light, and intense pain in the supra-orbital region; cannot clearly distinguish any object; never had any form of eruption.

Local depletion was resorted to; pills of calomel and opium were prescribed, with the external use of extract of belladonna. It would be trespassing needlessly on space to give the daily reports of the case; but on the 9th of April ptyalism was fully

established and inflammation was reduced ; but a dimness of vision remained, which was subsequently removed by blistering and collyria, and she was discharged cured on the 4th of May.

I could easily multiply examples similar to those already reported, in proof of the communicability of infection from the infant to the nurse ; but the foregoing will, I trust, be considered sufficiently demonstrative of the fact. It has been well observed, first I believe by Boërhaave, that the syphilitic virus, when received into the constitution through any other source than the ordinary mode of infection, gives rise to a disease much more intractable in its nature and far more difficult of cure, than that which we are in the habit of witnessing as resulting from any form of sore (the phagedenic, perhaps, alone excepted) to which the parts of generation are liable ; and this remark holds good, whether we consider it in relation to the structure primarily affected, or to the frequency of secondary symptoms likely to supervene on the absorption of the poison. The truth of the latter proposition is fully proved by reference to the foregoing cases, as likewise to those in which infection has been contracted by surgeons and midwives while in the discharge of their duties ; and in which relapses after apparent cure form so prominent a feature. The ulcers which occupy the breast in the vicinity of the nipple differ, as far as my observation extends, in many essential

respects, from those fissures or abrasions which are commonly met with during the process of lactation. They are usually more or less excavated, with elevated edges, and in many points resemble a primary ulcer on the parts of generation. This circumstance, I think, although inoculation has failed in substantiating their specific character, may yet form the basis of practical investigations. The subsequent eruption, to whatever class or variety traceable, the peculiar appearance of the throat when attacked, the osteocopic pains, all demonstrate with a degree of unerring certainty its true specific origin. Infection, then, may be communicated to a healthy nurse from a syphilitic infant under two different circumstances.

1st. *A hired wet nurse* may become infected through means of an abrasion or ulceration in the nipple or its immediate neighbourhood, caused by irritation occasioned by the mouth of the child. This has been proved by Cases 1 and 2, and confirmed by those adduced by Drs. O'Connor, Gavin, Colles, Whitehead, and others.

2nd. *A hired dry nurse* may, while engaged in caring and dressing the child, become herself infected by the infant from mere contact, without the intervention of any solution of continuity in any part of the body. This was the case in the fourth instance cited, and, possibly, the third likewise, and is a species of contamination particularly alluded to by Dr. Colles. Some writers describe

a third mode of infection, through the medium of the milk ; but I have never met with an example in which infection was transmitted in this way, nor do I believe it ever occurs. "As the seminal fluid of a syphilitic male," says Mr. Travers, "does not infect his paramour, so neither does the milk of a syphilitic nurse infect the infant she nourishes ; the natural secretions, by a most happy economy, however they may deviate from a healthy standard, not being in any case a vehicle of this poison.*"

Mr. Whitehead has, no doubt, detailed the particulars of three cases in which he believes this was the source to which contamination was attributable ; but having carefully perused the cases reported by him, I feel assured that he is labouring under a misapprehension on this point. Thus, in the third case adduced in his "Illustrations of Transmitted Syphilis," the husband is reported to have infected his wife during pregnancy ; the disease in him having exhibited itself in an urethral discharge, accompanied with excoriation of the glans and penis, succeeded by bubo, and subsequently by pains in the bones. His wife, three months after delivery, became the subject of confirmed syphilis, exemplified in a profuse eruption over the body, and inflammation of the throat and eye, to which general debility was superadded. The infant, although born healthy, began to decline in

* On the Pathology of Venereal Affections, London, 1830.

ten or twelve weeks, while being suckled by the mother ; and in four months after birth, the throat and mouth were excoriated, patches of eruption presented, first on the nates, and afterwards all over the body, and the child died at the age of sixteen months. The mother subsequently gave birth to nine children, five of whom died before attaining the age of four months ; the life of the sixth was protracted to one year and five months ; and the remaining accouchements terminated in abortions or premature confinements. The mother eventually died, worn out by frequent relapses of the disease. Again, in Case 5, the husband had been under treatment for primary syphilis ; and the child, while yet on the breast of the mother, at the age of fifteen months, was attacked with an eruption and sore throat, and died exhausted at twenty months from the date of its birth. The mother was the subject of syphilitic iritis and condylomata ; the father had frequent relapses of syphilitic symptoms ; and, having married a second time, communicated the disease to his wife, the effects of which were perpetuated in their offspring. Case 12, in which transmission of the infection through the medium of the milk is said to have resulted, is so analogous to the two foregoing, that it is unnecessary to give an abstract of it. That the train of symptoms described in the preceding cases was originated in and perpetuated by a venereal taint, admits not of the slightest

vestige of doubt ; but that Dr. Whitehead is in error in attributing to the infant the cause of the maladies is, in my mind, perfectly clear ; and it requires but little discernment to perceive that, in the three instances alluded to, the father was the polluted fountain from whence all disasters flowed and not the natural mammary secretion destined for the sustenance and nutrition of the offspring.

Moreover, Dr. Whitehead seems to have lost sight of a point of much practical importance—one which I conceive is now well established, and to which I shall have occasion hereafter to advert, viz., that a diseased infant cannot, under any circumstances, contaminate its own mother. Observation and experience have taught me, and it is a rule to which I have never known an authentic exception, that a nurse may continue to suckle a diseased infant with perfect safety to herself, so long as no abrasion of the cuticle, or ulceration in or about the nipple occurs ; but when such a condition ensues, she can no longer do so with impunity. The same remark is made by Swediaur, who says,—“ In all cases of the kind that have come to my knowledge, either the nipples of the nurse were affected by syphilitic ulcers in the mouth of the child ; or, reciprocally, the nipples of the nurse being attacked with ulcers, occasioned ulcers of the same kind in the mouth, nose, and lips of the child, and thus communicated to it a

general infection.”* Far, therefore, from supposing that the milk of the mother, or infected nurse, may serve as a vehicle for the introduction of the virus, I am firmly convinced that the process of lactation, in an individual where no breach of surface has been effected, acts as a safeguard to the constitution, and presents an insuperable barrier to the reception of the syphilitic poison ; and from the careful analysis of those cases reported by different writers, it will easily be seen that, in every genuine instance of infection communicated from the child to the *wet* nurse, an abrasion of the surface over the gland was plainly observable.

2nd. A strange *dry*-nurse, not the mother, may become infected from mere contact, while engaged in dressing and attending to the wants of the child ; which will be perceived by reference to the last case reported. In the third case adduced, it was stated that the syphilitic virus was *supposed* to have entered through the medium of a lacerated wound, which occurred during the period the nurse was engaged in tending but not suckling the child. This, it will be observed, I have not urged as a positive medium of contamination, although such an explanation would appear to me far from improbable ; as I am well aware contact alone would be in itself sufficient to account for the symptoms of contamination which were exhibited in the per-

* Swediaur on Syphilis, vol. ii. p. 14.

son of the attendant. Numerous examples of this kind are cited by Dr. Colles, in which, almost simultaneously, a sympathetic affection of the genital organs of the female took place.

In opposition to the above facts, some writers do not believe in the transmission of infection from the child to the nurse. Mr. Hunter considered the phenomena described so different in their nature and so dissimilar in their properties, as to be entirely without the pale of those affections which he denominated venereal; and another and more recent writer would seem so far to forget the leading features of the disease, as to describe it under the more obscure and not less inappropriate head of sibbens. On what foundation this opinion is grounded, or how far these two affections are identical, is best seen by referring to the author's own definition, "Sibbens or sivvens is a disease purely local;"* and, in alluding to the latter affection, Hunter remarks, "It may be allowable to add, that the yaws do not differ more from the venereal disease in curing themselves, than in this circumstance, that, like the small-pox, they affect none a second time."† True to his principles, yet blinded by the all-powerful influence of prejudice, M. Ricord, while he does not altogether deny the possibility of this form of syphilitic infection, withholds his definitive opinion till demonstrated by inoculation:—"How reserved, then," says he,

* A Treatise on Syphilis, by P. J. Murphy, M.D., Lond. 1839.

† Hunter on the Venereal, by Adams, p. 531.

“should we be, and what prudence, caution, and attention should we bestow upon the contagion of secondary symptoms, before we acknowledge it as a demonstrated fact.”*

It is strange, however, while the professor at the hospital “Du Midi” seems so guarded in his diagnosis, that he should have furnished the details of the following case, which I transcribe from his work on venereal diseases.

Ulceration of the breast ; inoculated without result.
—“God—— Eulalie, aged 28, entered March 22nd, 1834. This patient stated that she had never had any primary syphilitic affection ; that her husband’s health had been always good ; and that her breasts had never been sore whilst suckling. Four months previous to our seeing her, she took a nurse-child ; it was very thin, but had neither on the mouth nor other part of the body any wound or ulceration ; three weeks later, pimples appeared on the forehead and at the anus ; their surface became purulent, and covered with crusts ; it had on the body some patches covered with squamæ ; on the nates and calves of the legs deep ulcerations. The suckling was continued for six weeks ; but as the disease increased every day, the child was taken back to its parents and died. Till that time the nurse had had no symptoms, but a week later, on both breasts near the nipples fissures formed, one on the left side, and four on the right. Never-

* Ricord’s Letters, by Stapleton : Dublin, 1852.

theless, she continued for a fortnight to suckle her own child, who had never ceased to enjoy an uninterrupted good state of health ; the breasts were dressed with opiated cerate and a decoction of hyoscyamus ; then ulcerations having succeeded to fissures, and the pains having become very acute, the patient resolved to come to the hospital. On each side of the breast and nipples were ulcers with greyish ground, abrupt irregular edges, and resembling, although simple, syphilitic ulcers.

26th. The pus from the right breast was inoculated on the right thigh, and that taken from the left, on the left thigh ; dressings with cerat. opii were ordered.

27th. The punctures were red ; but on the following day no pustule was produced ; simple dressings were applied to the ulcerations.

April 6th. All was becoming clean ; there was a decided improvement.

12th. The ground of the wounds was nearly level with the surrounding parts ; the patient was obliged to leave the hospital on business, and returning some time after, we found only one deep fissure remaining, whose pus was inoculated on the left thigh, but without result. A lotion of sod. chlorin. was applied, and in a week's time she left quite cured."

The foregoing case, the particulars of which are recorded in M. Ricord's peculiar pithy style, is valuable for two important reasons ; in the first

place, the certainty of contamination from a syphilitic nursling is clearly demonstrated ; and in the next, another interesting fact is established, namely, that a healthy child cannot be infected by a diseased mother, while she is engaged in suckling it.

Mr. Acton, to whose work I alluded in the opening of this chapter, re-echoes the sentiments of his distinguished preceptor, and the same criterion of inoculation directs him in drawing his conclusions. "Irish surgeons," this gentleman writes, "do not coincide in these opinions ; the statements they make, however, are very startling ; and it would appear as if syphilis, conveyed from the child to the nurse, is a common affection in Ireland."* It would probably be well if the author just quoted had examined more closely the facts and phenomena, as recorded by "Irish surgeons," before writing the above-named article. There are, however, one or two points of minor importance, to which I may briefly advert, as they have been particularly dwelt upon by some as constituting a marked difference between this and the more common varieties of the disease. It has been remarked, for example, that when enlargement of the axillary glands succeeds to an ulcer of the breast produced from the mouth of an infected infant, suppuration, an event of so common an occurrence when the inguinal glands

* Diseases of the Urinary and Generative Organs, p. 637.

are engaged, never takes place. But how often are absorbents of this latter class attacked, while conveying the virus from a chancre situated either on the male or female organs of generation, and where no doubt can exist as to the nature of the ulcer without such termination ; and surely it will not be affirmed that the symptoms of infection are more equivocal, because such a result has not followed. Again, it has been observed that the labia pudendi of the nurse is often the seat of raised tubercles, resembling condylomata, which are capable of communicating infection ; and that these are not unfrequently visible where no form of eruption presents, and generally appear contemporaneously with disease of the throat.* Now, although it must be admitted that mucous tubercles are of frequent occurrence in females labouring under vaginal or utero-vaginal discharges, I am not aware of any instance in which the same species of disorder has been produced in the male from this source ; and inoculation has as yet failed in furnishing me with any positive result. It would, however, appear that diseased nurses have, during sexual intercourse with their husbands,

* The affection of the throat, as described by Dr. Colles, is a milky white state of the mucous membrane. This appearance I have observed at the first onset of the disease ; but in cases which have come under my notice, where the disease originated in the unhealthy child, ulceration either in the substance of the tonsil or at the back of the pharynx quickly ensued.

propagated an infection which, externally at least, is nearly allied to that form of raised ulcer of which the pudenda happened to be the seat at that particular time. How to account for this apparent anomaly, together with the simultaneous affection of the throat, I know not ; but feel assured that the better we become acquainted with the precise characters of the disease, and the more frequent opportunities we may possess of studying the nature and comparing the symptoms of the disorder as it presents in each individual case, in the same proportion will the difficulties which at present retard our progress be removed ; and we will be enabled with a greater degree of facility to elucidate those phenomena which for a while would seem inexplicable.

Dr. Colles, with his usual penetration and accuracy of observation, remarks, "I have never seen or heard of a single instance in which a syphilitic infant, (although its mouth be ulcerated) suckled by its own mother, had produced ulceration of her breasts ; whereas very few instances have occurred where a syphilitic infant had not infected a strange hired wet nurse, and who had been previously in good health."* To the truth of the foregoing remark, verified as it has been by repeated observation, I can safely vouch ; although why such should be the case, is not so easily determined.

* Colles on the Venereal Disease, p. 385.

And here I must claim the indulgence of the reader, while I make a momentary digression, and touch upon topics that to many may be considered irrelevant to the subject on hand ; involving, however, not alone personal reputation, but points of practical utility. In a paper published in the *Lancet* of the 22nd of August, 1846, commenting upon a communication of Mr. Acton, I made the following closing observations :—"There is one point in Mr. Acton's paper which I cannot pass over in silence. In his concluding remarks he proceeds to say: 'During the last year a paper of mine was read before the Royal Medical and Chirurgical Society, in which a child hereditarily affected by the father with syphilis never infected the mother who suckled it, and I have met with similar instances.' If Mr. Acton had consulted some of the treatises which have emanated from the Irish press, he would not, I think, be inclined to regard this circumstance with so much surprise. In the numerous cases which came under the notice of Dr. Colles, of mothers suckling their own children, although diseased, he never observed any ill-consequences ensue from the practice ; and in a former essay I mentioned that, out of the many examples met with in the Lock Hospital, I never could trace infection in a single instance to a mother from nursing her own offspring, while affected with syphilis." Now, I do not find fault with the writer alluded to, for having left unnoticed any contribution

made by me to this branch of special pathology, as my observations have hitherto been restricted to the pages of the periodic press, and may possibly have escaped his notice ; but the omission of the name of Dr. Colles in a communication purporting either to elucidate the more obscure phenomena of the disease, as communicated from this source, or explain away alleged fallacies, is, in my mind at least, inexcusable in its nature, and evinces a spirit of disingenuousness which is unbecoming in an author. And, indeed, I might even proceed further, and affirm that an apparent injustice was done to the memory of that distinguished surgeon, when we remember that the observations made by him in his treatise published in 1837, were put forward by Mr. Acton nine years afterwards, in a manner which carried with them the semblance of originality. If the few remarks of mine already referred to, had the effect of directing Mr. Acton's attention to Dr. Colles's work in his last edition, (from which I now quote) I shall be amply remunerated by the reflection:—"Experience further shows me, that she [the mother] may suckle such a child the usual period, and yet remain free from the disease (which may severely attack the child) which inherits it from the male parent. Of this fact no longer any doubt remains, for even the late Mr. Colles, (whose opinions on these matters I have been unable to quote hitherto, as they differ almost entirely from my own) is obliged to admit the fact

that the mother is not necessarily affected when suckling her own offspring which is affected with syphilis. He says, page 304, 'One fact well deserving our attention is this, that a child born of a mother who is without any obvious venereal symptoms, and which, without being exposed to any infection subsequent to its birth, shows this disease when a few weeks old, *this child will infect the most healthy nurse, whether she suckle it or merely handle and dress it*; and yet this child is never known to infect its own mother, even though she suckle it while it has venereal ulcers of the lips and tongue.' I have placed," continues Mr. Acton, -"a portion of the extract in italics; for, as I have previously stated, my experience is opposed to the fact that a nurse will become infected; and supposing it a well authenticated and observed case, I am at a loss to understand why a mother may suckle a syphilitic child with impunity, and not a nurse. But why one and not the other should become affected he deigns not to enlighten us, and I think it would be difficult for any one else to do so; for surely if the child's mouth or secretions can infect the nurse, very probably the same effect would be produced on the mother."*

It was my exalted privilege to attend the late Dr. Colles on his hospital visits during a period of four years; and I feel (although in essential points

* On Diseases of the Urinary and Generative Organs, p. 631-2.

of practice I have been led to dissent from him), that I but express the feelings of my professional brethren in this country, when I attest that a more pains-taking surgeon, a more careful investigator of disease, a more minute and accurate observer, a more rigid inquirer into nature's laws, their natural relations in health and their perverted sequences in disease, was never known to have passed from amongst us ; and it might in truth be said of him, as it was of his distinguished contemporary whose name appears in front of his work, "His museum was his study, Nature was his book." The observation which has called forth these parenthetical remarks was one of practical value, and was worthy of his original mind. It is *not* a fact that he was "obliged to admit," but his peculiar powers of penetration saw what no previous observer had noticed, that a syphilitic infant was incapable of infecting its own mother. This fact has now stood the test of fifteen years experience, confirmed by the records of hospital and private practice, authenticated by M. Ricord, and corroborated even in the practice of Mr. Acton. To Dr. Colles, therefore, I trust will be accorded, by all subsequent syphilographers, the honour of this important physiological discovery. As to the *rationale* of the fact, I no more than Dr. Colles can offer an explanation. I am therefore obliged to rest content in its confirmation by experience,

without being sufficiently competent to afford any elucidation of it.

Although the infection produced in a healthy nurse by a syphilitic child does not, in its introduction into the system, appear to be influenced by any governing power ; yet it would seem that when once a class of symptoms present, others, if they show themselves at all, usually follow in a natural order. Thus, in Case 1, a pustular eruption appeared, which was eventually followed by a class of sore throat peculiar to that particular class ; and, in Case 2, a scaly eruption, which was succeeded by an excavated ulcer of the tonsil. As has been already observed, the disease when thus contracted seems less amenable to the ordinary modes of treatment ; the constitution becoming, as it were, quickly and universally saturated with the poison. And as relapses after apparent cure appear to be so general in their occurrence, it may be expected that, in conclusion, I am prepared to suggest some plan of treatment which may tend to counteract the effects of the virus, and protect in some degree the system from repeated inroads of a disease, which, if allowed to proceed uncontrolled, is obviously calculated to undermine the general health, and give rise to other symptoms of a more serious nature, which sooner or later must prove fatal to the patient.

That mercury, as has been already proved, is a

most valuable auxiliary in the cure of syphilis, few at the present day will deny ; and as such I conceive it peculiarly adapted to the cases under consideration. But even in those instances, if used with a sanguine hope of effecting a permanent cure, the practitioner, it is to be feared, will not unfrequently be disappointed. The preparation which I find most efficacious is the iodide, pushed so far as to induce a mild degree of salivation. If, however, remedies are now laid aside, under the idea that a permanent cure has been effected, a few weeks will in general bring a recurrence of the same form of disease ; or, perhaps, other symptoms denoting a latent taint will be superadded. I therefore find it advantageous, before the effects of the mercury have worn off, to follow up the treatment by the administration of the iodide of potassium, which ensures the patient the best chance of recovery. Under any form of treatment, however, relapses will occasionally take place.

I shall now briefly recapitulate the leading points of importance in the foregoing chapter.

1st. Infection may be communicated from a syphilitic infant to a *hired wet nurse*, by means of an abrasion or ulceration in or around the nipple. This ulceration, if closely examined, will be found to correspond in some particulars with a primary venereal ulcer.

2nd. Infection may be communicated to a *hired dry nurse* by mere contact, without any breach of

surface. This can only occur where she is engaged caring but not suckling the child.

3rd. Infection is *not* transmissible through the medium of the milk. In cases where such has been stated to have taken place, contamination of the offspring has preceded delivery.

4th. A *mother* cannot be infected by her *own* child, although it be diseased while she is occupied in nursing it.

5th. Mercurialization, succeeded by the administration of the iodide of potassium, would seem the most advisable plan of treatment.

6th. Relapses after apparent cure are of frequent occurrence.

CHAPTER XVIII.

GENERAL OBSERVATIONS ON THE TREATMENT OF
SYPHILITIC DISEASES.

THE deep-rooted prejudice in favour of the specific powers of mercury, in the treatment of all the varieties of syphilitic diseases, having now (except in the minds of a few individuals whose early predilections counterbalance a more matured experience) been extirpated by an overwhelming mass of well authenticated evidence arrayed against that antiquated and unphilosophic doctrine, a writer at the present day is spared the labour of collecting from statistical records materials to form the foundation of an opinion now so universally conceded. The reports of the Army Medical Board, the subsequent united testimony of the surgical staff of the British army, the investigations of Carmichael, Rose, Guthrie, Hennen, Ricord, Bacot, Green, Mayo, together with a host of others, are now so familiar to professional readers, that further allusion to these particular researches would be deemed superfluous.

More recently, however, Dr. Graves has undertaken the laborious task of collating the opinions of German practitioners, including the results of both methods of treatment in the great hospitals of Hamburgh, Berlin, and Vienna. The returns from the hospital at Hamburgh, under the superintendence of Dr. Fricke, were accurately tabulated by his assistant Dr. Günther, and the following facts were elicited. As regards the time occupied in the cure of these affections, under the mercurial and non-mercurial modes of treatment, the precise relative proportion could not be satisfactorily ascertained ; but the balance was stated to be in favour of the latter. It was likewise proved that in those patients where mercury had been employed for the cure of the primary sores, nearly one-third were attacked with secondary symptoms. On the other hand, the results of the simple treatment without mercury (which consisted in attention to cleanliness, rest, a restricted diet, and, in plethoric subjects, general blood-letting), are reported to have exceeded Dr. Fricke's most sanguine expectations. A cure was effected in a much shorter period than when mercury had been used ; the patients left the hospital with much healthier looks ; and when relapses took place, the symptoms were of a much milder description than those which presented in individuals who had been originally subjected to the influence of mercury. When constitutional symptoms supervened, they were speedily cured

by a decoction of woods and nitric acid. Caries of the bones was never observed to occur as a complication, where the patient had been treated without mercury ; but in cases where a contrary line of practice had been adopted, caries of the nasal, palatine, maxillary, sternal, and tibial bones was frequently met with.

In the Charité hospital at Berlin, where Dr. Struntz treated seventy-four cases of primary disease, all recovered without the use of mercury, and in none did constitutional symptoms follow. A cure under those circumstances was accomplished two, and sometimes even four weeks sooner than when mercury had been employed. Again, in the great hospital at Vienna, all primary affections are treated without mercury ; secondary symptoms of a mild form occur in one out of every nineteen cases ; the phagedenic varieties of syphilis, either in their primary or secondary forms, are seldom met with ; and caries of the bones is a disease quite unknown. Here, however, it will be necessary to observe that a vast proportion of the so called primary affections alluded to were condylomata—growths which, we have previously seen, are more amenable to local than general treatment. This fact, to the minds of English surgeons, will more satisfactorily account for the rarity of constitutional symptoms, than the deductions drawn by German practitioners founded upon the non-mercurial treatment.

From 1831-4, 5,271 patients had been treated in the Strasburg hospital under M. Kayser ; for the most part, on the non-mercurial plan. The number of relapses and secondary affections, in which cases only mercury was administered, was very small ; in no instance was caries met with.

From the observations of M. Desruelles, made at the Val de Grace, extending over a period of ten years, and instituted upon 8,810 patients, he has come to the conclusion that the simple treatment should form the basis of all rational practice ; but should the ulcers exist for the space of twenty or thirty days without showing any disposition to heal, mercury may then be had recourse to in order to effect a cure.

Dr. Roe has drawn up a return of the venereal patients treated in the 38th Regimental Hospital, from the 11th of June, 1836, to the 15th of November, 1837 ; and out of 231 individuals under his care, of whom 87 had chancres and 36 bubo, there was only one case of secondary syphilis. The treatment was of the simplest description, consisting of rest in the recumbent posture ; the free use of purgatives ; the application of lint, constantly moistened with a solution of sulphate of copper, to the primary sore ; and restriction to a milk diet. The average time required for the cure of the patients under Dr. Roe's charge was a little over fifteen days. No mercury was employed. These results are particularly valuable, as they are at-

tested by Dr. Graves, who had an opportunity of watching the effects of this special line of treatment.

It would be easy to multiply evidence to demonstrate the curability of all the varieties of syphilitic affections without the aid of mercury ; but the foregoing references to researches of modern date will, I trust, suffice to establish the authenticity of the fact. To the testimony of others I would only add, that I have fully satisfied my own mind on this subject in the wards of our Lock Hospital.

We, therefore, accord our thanks to those army and continental surgeons, who, by their indefatigable and scientific exertions, have assisted in wresting from the grasp of the charlatan a class of diseases so indigenous to every country, and so prevalent in every climate,—diseases, too, which in their origin and progress recognise no distinction as regards age, sex, or temperament ; causing the death of the fœtus while yet in the womb of its mother ; exhibiting their characteristic marks in the early months of infantile existence ; infusing their poisonous qualities into the blood of the adult, whether male or female ; and stereotyping with indelible characters the closing scene of the veteran in debauchery. We perceive that a revolution has been effected, which to an almost incredible extent must redound to the sanatory condition of the nation, and consequently prolong the term of human life. We acknowledge that these

are labours worthy of noble, scientific, and philosophic minds. But this is not all. The dogma of Hunter, so long accredited, by which it was laid down as an incontrovertible fact that these affections, if not arrested in their deadly progress by the influence of mercury, proceeded by slow but certain stages from bad to worse, until the life of the worn out patient was at length forfeited by repeated accessions of the disease, has, by a mass of indubitable evidence, been proved to be a doctrine untenable in its position, and fallacious in its adaptation. In fine, the deductions naturally flowing from these investigations, while they do honour to the unprejudiced spirit in which they were undertaken, are much more important in a practical point of view; as they point to the unnecessary misery and the protracted suffering which the indiscriminate administration of mercury inflicted, upon those who were formerly condemned to that unjustifiable routine.

But while I fully appreciate the value of this modern improvement, it is greatly to be feared that, in avoiding the errors of their predecessors, by discarding altogether the use of mercury, many have acted most injudiciously. In speaking in a former part of this treatise, of the treatment best suited to the cure of the primary and secondary affections alluded to under their respective heads, I endeavoured to show that the most common form of primary ulcer which we meet with in this country

can, under ordinary circumstances, be more efficaciously managed by topical applications alone ; and that, in many of the constitutional sequelæ, mercury may likewise be safely dispensed with. At the same time, I confidently assert that there is a certain class of cases in which we should not hesitate in producing a mercurial action, if we aim to promote the best interests of the patient, and are desirous to neutralize or modify the pernicious influence of the poison, and thereby prevent ulterior injury to the system. Thus, for example, while in the treatment of the superficial primary ulcer, together with its usual consecutive results, I do not recognise the anti-syphilitic powers of mercury, (although in iritis, as in other inflammatory affections of the eye, its salutary action is quickly displayed) but, on the contrary, believe that its exhibition is most injurious in giving rise to complications, and exasperating the naturally mild symptoms which are known to succeed to this description of sore ; I am fully persuaded that in the treatment of the indurated primary ulcer, as also in the train of symptoms which usually follow upon that most poisonous sore, its use is not only beneficial in promoting a cure of the varieties of this form of disease, but absolutely indispensable to the final safety of the patient. But here the judgment of the practitioner will be required, in deciding upon the most favourable time for its exhibition, and deferring its administration until the disappear-

ance, in the primary ulcer, of all local inflammatory symptoms. In the secondary eruptions, a like caution should be observed during the febrile excitement which sometimes accompanies the cutaneous affection in the early stages of its development. Looking upon pytalism as the surest test of the beneficial action of mercury in the adult, experience has likewise taught me that no advantage is to be derived from too sudden or excessive salivation. The curative action of mercury in the former instance cannot be depended upon; and in the latter condition its salutary operations are at least suspended, until the more acute symptoms of stomatitis, together with the fever with which it is associated, are subdued by treatment or wear off in time.* In addition, the patient's strength, by the supervention of those untoward manifestations, is considerably reduced; his convalescence is materially retarded; and should mercury be again indicated for subsequent relapses, much difficulty will be experienced in exciting its healthy action, in consequence of its previous mal-administration. The iodide of mercury will, in many instances where the primary and secondary disease coexist, be found superior to any other preparation; and the mercurial vapour bath will form a valuable adjuvant in

* Dr. Christison, in his admirable work upon Poisons, mentions a case which came under his notice, where gangrenous inflammation of the throat and fauces was produced by excessive salivation. A nearly similar case came under my care some time since. Both terminated fatally.

certain constitutional affections, and in the latter stages of eruptive diseases, where the desquamating stage has been unusually protracted.

In the primary and secondary forms of phagedena, mercury, as a general rule, will be found to act most injuriously, by promoting the ulcerative process, and causing rapid destruction of the tissues in which the disease is seated. Thus, we shall find that under its use the primary sore will speedily extend its original limits, involving in its ravages the adjacent sound structures; and by constant hæmorrhage from the opening of contiguous vessels, the life of the sufferer will be placed in imminent danger. The ulceration of the throat, instead of being controlled by its influence, will spread with frightful rapidity, engaging in its unrestricted progress parts eminently essential to the vital functions. The rupial eruptive disease will evince the same morbid disposition; and if mercury be still persevered in, the life of the unfortunate patient will finally be victimized to the poisonous effects of the mineral.

As regards the beneficial action of the iodide of potassium, it is now almost unnecessary to pronounce any eulogium upon its curative qualities, in the constitutional forms of these diseases. Since its first introduction into this country, many years ago, by Dr. Williams of St. Thomas's Hospital, its value as a therapeutic agent has been fully responded to by every practitioner engaged in the treatment of syphilitic affections; and the following con-

clusions arrived at by that gentlemen, relative to the comparative value of mercury and iodine, have been borne out to almost their fullest extent by the subsequent experience of others :—"That the relief from pain is seldom complete from mercury, till the mouth is fully affected ; whilst under the use of the iodide, the patient is usually free from pain in three or four days, and almost constantly so in a week. That mercury often appears to aggravate the disease, and always impairs the constitution ; whilst, on the contrary, the iodide never proves injurious, and the rapidity with which many of these patients increase in health and strength is quite remarkable. The iodide also is useful in a much larger number of cases, and effects a cure without that disgusting train of symptoms which accompanies ptyalism ; it cures more certainly, in a much shorter time, and with less danger of relapse.*

I have already stated it as my firm belief, that the fluid preparations of sarsaparilla possess no innate virtue when administered in any of the forms of syphilitic diseases ; and when prescribed as the vehicle for the exhibition of the iodide of potassium, contribute no additional efficacy to the curative powers of that particular remedy. I therefore conceive these drugs might with propriety be discarded as medicinal agents, from the special for-

* On Morbid Poisons, p. 165.

mula of the practitioner ; more particularly when we consider the expense which their use entails upon hospitals and public charities.

In the management of all the varieties of syphilitic diseases, much advantage will accrue from strict attention to cleanliness ; hence, the warm bath will be found a most valuable remedial appliance. The benefits resulting upon the employment of this adjuvant are highly appreciated in continental practice, where condylomatous excrescences form so large a proportion of the cases submitted to treatment.

Considerable stress has been laid, especially by army surgeons, on perfect quietude ; repose in the recumbent posture being regarded by them as a measure almost essential to the cure of the patient. I have not, I confess, by strict adherence to this rule, derived that advantage which from published documents I was led to expect. When local inflammatory symptoms are present ; when vascular excitement prevails ; when pains in the bones and joints are complained of ; and, above all, when the patient is subjected to the action of mercury ; confinement to bed will be enforced by every judicious practitioner. But in the more advanced stages, particularly in the chronic forms of eruptive diseases, moderate exercise in the open air has always appeared to me preferable to close confinement.

During the course of treatment, the diet of the patient should constitute a consideration of the

first importance. Without proceeding to the extent of Desruelles and others, in restricting the individual to a milk regimen, it will at once be apparent that, as long as any irritation or inflammation exist, the diet should be of the most unstimulating description, and indulgence in vinous or spirituous liquors should be peremptorily proscribed. These directions will equally apply while the patient is being submitted to the influence of mercury ; otherwise, the curative effects of that mineral will be materially invalidated. On the other hand, in the ulcerative forms of bubo, attended with tedious suppuration ; in the latter stages of primary phagedena ; and in the destructive loss of substance consequent upon rupial eruptions ; the strength should be supported by a nutritious and generous regimen.

As regards the propriety of general depletion, with a view to the subjugation of inflammatory symptoms, I do not consider it a prudential line of practice. When such indications present, a desirable substitute will always be found in the tartar emetic mixture previously alluded to. Venesection will often be observed to protract convalescence, and when resorted to preparatory to the administration of mercury, will, by inducing premature salivation, not unfrequently defeat the object of the practitioner.

The topical abstraction of blood, by means of ecches, is, in the case of primary ulcers, a pro-

cedure highly reprehensible ; and by this means a number of poisonous sores may be generated instead of a solitary ulcer, and the difficulty of cure will in consequence be proportionably increased. A similar objection will hold against their employment in symptomatic bubo ; for should suppuration ensue, and the abscess open, each leech-bite which has not been cicatrized is likely to become inoculated by the pus, and thus degenerate into a specific ulcer. In sympathetic bubo, the result of uncomplicated gonorrhœa, local depletion will occasionally be productive of much advantage, and no danger need be apprehended from inoculation in this species of tumefaction.

In bringing these observations to a close, I cannot do so without congratulating the profession on the vast and decided improvements, which during the last few years have been effected in the treatment of these special diseases. And among the many well-merited tributes of respect and gratitude which have been accorded to the memory of our late distinguished fellow-countryman, Mr. Carmichael, the honour which yet awaits him at the pen of the medical historian will not be the least important ; who, while with retrospective glance, he scans the pages which will form the foundation of his labours, will announce that in the year 1813, in a “disregarded province of the empire,” there arose one who, with an original and unprejudiced mind, having shaken off the chains which

early associations and a firmly implanted education would fain have rivetted upon him, stood forward to investigate for *himself*, and to give the results of his labours to the world. Years had not yet added dignity to his brow; professional reputation had not yet characterized his career; a scientific and inquiring mind, united to an unusually extensive field of investigation, were his only recommendations. These, to the discriminating eye of the head of the Army Medical Board, were qualifications sufficient in themselves; public attention was awakened to the importance of those researches, and the valuable practical information which they embodied soon found its way to "every quarter of the globe where British troops were stationed."

A new era now began to dawn, and a few years produced a revolution in the treatment of these affections which exceeded the most sanguine expectations. The abundant fruits of subsequent labours, to which allusion has been already made, have proved that the advantages contemplated were of no transient description; and the united testimony of intelligent practitioners, enjoying the most favourable opportunities for observation, have corroborated the importance of these improvements. But much still remains to be done; the mercurial and non-mercurial rival schools must, at least in this country, cease to exist; and the surgeon must learn to note accurately the leading features of the primary affection, and to distinguish clearly the

appropriate characteristics of the varied constitutional sequelæ, which in themselves should prove his sole guides in the adoption of a sound and judicious line of treatment. Then, and not till then, will the lingering clouds of ignorance and credulity, which still overshadow this important and numerous class of diseases, be dispelled by the day-star of science, the harbinger of enlightened times, when reason and experience shall have asserted their ascendancy.

THE END.

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ERRATA.

In pages 95 and 118 the letter *s* has been omitted in the word abscess.

Page 113, for uthritis, read urethritis.

Pages 118, 147, and 148, for labiæ, read labia.

In the enumeration of the chapters in the contents and

in the body of the work, Chapter XIII has been omitted.

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